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ABSTRACT

Designed as a resource notebook for persons interested in the Media Curriculum Resource Specialist concept, the manual presents a summary of the activities of the Media Curriculum Institute held at Michigan State University (June 16-20, 1969). The section on administrative considerations provides a script for a slide presentation on an instructional materials center; the need for a media curriculum specialist, contributed by David Haarer; and a description of the operation at the Michigan State University Regional Instructional Materials Center, by W. E. Mellon. Focusing on the instruction of teachers in the use of media curriculum, the second portion contains three slide presentation scripts to inform teachers, and suggests guides for the construction of program objectives. The final and most lengthy section provides a list of sources of educational media for speech and language services, suggestions for teacher made materials, and commercial materials and equipment suitable in such areas as the visually handicapped, hearing impaired, perceptually handicapped, gross and fine motor development, physical education, and music instruction. (RD)

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THE MEDIA-CURRICULUM SPECIALIST IN SPECIAL EDUCATION

Report

of the

MEDIA-CURRICULUM INSTITUTE
Michigan State University
East Lansing, Michigan
June 16-20, 1969

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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INTRODUCTION

The purpose of this institute may be best explained in the following statement from the Michigan Department of Education, Division of Special Education:

> "The role of the Special Education Curriculum Resource Consultant is a new concept for Michigan. The objective is to give support to all areas of Special Education with ideas, materials, and meaningful guidance.
>
> It is the hope of the Special Education Division that this position will be one which is reimbursable within a short time. Rules and regulations or guidelines have not as yet been established nor have certification requirements.
>
> At this time we see the Curriculum Resource Consultant as one who may work closely with the existing local materials centers and the consultants in the various disability areas. However, in some parts of the state the role may also be one of direct service to teachers. Materials for Special Education would be more readily used if teachers had the opportunity to learn about them through inservice meetings and directly from the Special Education Curriculum Consultant.
>
> Worthwhile educational programs are basically the result of good planning. The Curriculum Resource Consultant would facilitate such planning and would provide the means and methods to help teach children not subjects."
>
> —— Mrs. E. W. Walline

The origin of this institute has its roots in an idea first voiced officially by Marv Beekman, State Director of Special Education, when he suggested that the state must someday soon devise a plan for helping special education classroom teachers keep abreast of the media explosion. The need is obviously different around the state, but frequently teachers request information in the following areas: How to develop their own materials; how to select and use commercial materials in the most effective way; and how to match media to the instructional program.

In a series of one day media workshops sponsored jointly by the State Department of Education and MSU at the MSU regional IMC, several hundred persons had an opportunity to be exposed to the services of the center and a limited opportunity to become acquainted with the equipment used in the construction of materials. As part of the total plan, a Special Education Curriculum Conference was held at MSU on February 21, 1969.

The Media-Institute of June 16-20, 1969 was designed to expand on the experiences of the two programs mentioned above with its major objective the training of a select group of persons who could become instrumental in implementing the program as suggested by Marv Beekman.

The program of the institute was carried out by a number of consultants all from the State of Michigan. This publication is meant to be a summary of the activities of the institute and a resource notebook for persons interested in the Media-Curriculum Resource Specialist concept. Obviously, in the course of one week we did not hope to adequately train a person in all aspects of the proposed position. However, we did hope to provide food for thought and a basis for future action on the part of individuals and/or school districts.

The organization of this resource notebook is as follows:

Part I	Administrative Considerations
Part II	Teaching Teachers
Part III	Use of Media with Handicapped Children

PART I

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Ingham Intermediate School District
Mason, Michigan

NEED FOR A MEDIA-CURRICULUM SPECIALIST IN SPECIAL EDUCATION

My first exposure to an instructional materials center was in 1955 when I began my teaching career with a classroom of emotionally disturbed and/or socially maladjusted children. The instructional materials center was the size of a janitor's closet. It was kept locked and the principal and his secretary had keys.

The materials center contained:

Old series of text books
Some pencils (a few colored)
A few water paints
Some crayons
One filmstrip projector with parts missing
A few frames to make pot holders
Plain white paper
Used notebooks
Lined paper
Manila paper
A quart jar of dried-up paste

The worst part of it was that there was no Media-Curriculum Specialist to tell me how to utilize these valuable materials! But the principal was most understanding. He believed in academic freedom. Our instructions were simply to decide what we wanted to teach (curriculum) and get from the supply room whatever was needed. However, only one pencil was alloted per student. Always count the pencils before you dismiss the class because the kids have a tendency to steal the pencils. Incidently, at the beginning of the year the room was completely bare of materials. Everything I needed was in the store-room.

I was a neophyte and a bit naive. I did a nasty thing. I asked for ten dollars worth of supplies that I could not find in our instructional materials center. It was the wrong thing to ask. It was not in the budget. Salary $3600; supplies: no budget.

I spent $10.00 of my own earnings and used the city dump as my instructional materials center. We put on a science fair — the first the school ever had. The administration was pleased. "We never had anything like this before."

This program for disturbed children (and teacher) was fifteen years ago and times have changed somewhat. The flow of instructional materials into school buildings has become quite significant during the last several years due to the various Title Programs under the Federal Elementary-Secondary Education Act.

Special education teachers have traditionally experienced a serious lack of effective instructional materials for handicapped children. However, materials are more recently becoming available to special education teachers. The market is beginning to be flooded with many materials that will supposedly work miracles with many children. Teachers and administrators are becoming bewildered on what to buy within the limited budget.

Sometimes a grant comes through and there is a mad scramble to spend all the money. Inadequate attention is given to "What are the needs" or "Would teacher-made materials be more effective and far less expensive?"

An attempt must be made to bring special materials and curricular techniques to handicapped children. However, equally important is the need to have local schools address themselves to the task of in-service education in the utilization and evaluation of specialized media. Teachers and specialists working with children who have learning problems must somehow be adequately informed about the extensive range of new materials. They need to know how to define the problem and then learn to recognize those instructional media most likely to enhance the education of the child.

Instructional materials themselves do not produce results for handicapped children. Merely developing a center with books on the shelves is a waste of everyone's money. A method must be worked out whereby we get the right materials into the hands of the teachers who can help the "kids". I have heard of instructional materials and equipment purchased with federal funds that were kept in unopened cartons for over two years.

We can spend thousands of dollars stocking the shelves or filling the "supply room" but this is educationally worthless unless we get a person in the media center that can deliver the goods, explain the materials and demonstrate its use with youngsters.

The Intermediate District should provide leadership in the development of regional instructional media centers.

Although the special education instructional materials centers at Universities have been pioneers in special education "media-curriculum", I do not believe they can physically meet the needs at the operating level. To have university centers attempt to directly serve special education teachers in several states is not at all satisfactory in meeting the needs of special education teachers or their students.

I believe that large city school districts and intermediate districts (or combination of intermediate districts) with State and Federal support could and should develop sound special education instructional materials centers which will provide in-service education to all constituent teachers on use of specialized materials and techniques for handicapped children.

In conjunction with the instructional media center, the regional unit (intermediate or large city district) might well find it advantageous to develop comprehensive clinic and diagnostic centers. Most local school districts cannot financially support or professionally staff comprehensive clinics and diagnostic centers for handicapped children and/or children with learning disabilities. Too many non-school oriented clinics are diagnosing handicapped children and handing out educational prescriptions which are totally unrealistic for a child in a given public school setting.

The State Department of Education, the university media-curriculum center and the regional unit (large city or intermediate) have joint responsibilities in authorizing, training and approving reimbursable personnel to be employed as "Media-Curriculum Specialists" at the regional level. The regional agency in turn would have responsibility to provide direct service to its constituency.

The youngsters are in programs in our local schools; the teachers are there. The service, through qualified people, must somehow be brought to the instructional setting.

SUMMARY

If our special education programs for handicapped children are going to be "worth their salt", it is essential that the "right" instructional media be provided to handicapped children. Of equal importance is the need for the media-curriculum specialist that in a meaningful way can deliver the goods, explain the media and demonstrate its use with handicapped and/or troubled children who have learning problems.

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SCRIPT

SERVICES OF AN INSTRUCTIONAL MATERIALS CENTER

TITLE SLIDE: Services of an Instructional Materials Center

SLIDE 1: Instructional materials centers may vary as greatly as the schools or universities which they serve.

SLIDE 2: They may be large like this one,

SLIDE 3: Medium-sized like this,

SLIDE 4: Or small like this.

SLIDE 5: Whatever an instructional materials center is like, it must have a primary purpose of facilitating children's learning —

SLIDE 6: In classroom-size groups,

SLIDE 7: In committees,

SLIDE 8: In individualized instruction situations.

SLIDE 9: Because of the diversity of schools and students, planning of an instructional materials center is a complex operation.

SLIDE 10: First of all, planners must take into consideration the specific population to be served by the center. Will it serve primarily teachers or both teachers and students? Will it serve only those in general education or those in special education as well? Will it serve advantaged or disadvantaged pupils? Will it serve a school, a school system, an intermediate district, a region, a state, or several states?

SLIDE 11: Once the population has been identified, attention needs to be given to the instructional program to be supported by the center. There is no doubt that instructional media play a crucial role in teaching and learning,---------------------but only when those utilizing them carefully analyze learner needs and instructional purposes and select materials appropriately. Planners of instructional materials centers must, therefore, be cognizant of the curriculum in a school or schools to be served by the center and plan its services in such a way as to support the curriculum.

SLIDE 12: Subsequent to identifying the population to be served and the curriculum to be supported, planners of an instructional materials center will need to specify appropriate center functions. Perhaps these can be specified most appropriately by identifying what teachers and pupils should be able to do as a result of using the materials center. Should teachers be able to procure appropriate materials? Should pupils? Should they become competent in selecting materials specific to their needs? Should they develop skill in utilizing materials appropriately? Should teachers gain facility in producing simple materials? Should students? Should they be able to operate various types of audiovisual equipment? Should they be able to function as part of an instructional system which includes television or programmed instruction?

SLIDE 13: Once these types of decisions have been made in regard to center functions, the services, facilities, materials, equipment, and staff of the center can be rather readily identified. A budget can then be devised to support the carefully-identified services and materials.

SLIDE 14: What kinds of materials should an instructional materials center provide? Obviously, this question is answered, in part, by the size of the area served and the ease with which teachers can procure materials from the center. There are advantages in placing less expensive and more frequently needed media closer to teachers while more expensive, less frequently used ones may need to be housed in larger centers. Wherever materials are located, however, teachers in the 1960's need to have access to a variety to types, including

SLIDE 15: Print materials such as textbooks, SLIDE 16: Reference books,

SLIDE 17: Large print books for those with limited vision,

SLIDE 18: Three-dimensional manipulative materials for teaching math concepts

SLIDE 19: Or auditory skills;

SLIDE 20: Models such as this relief globe

SLIDE 21: And this torso model of the body;

SLIDE 22: Specimens — live or not alive;

SLIDE 23: Three-dimensional reproductions of real things as illustrated by this thermoform book;

SLIDE 24: Demonstration devices such as the flannel board, magnetic board, hook and loop board, or chalkboard;

SLIDE 25: Field trips to the community and resource people from the community;

SLIDE 26: Motion pictures, including captioned films for the deaf;

SLIDE 27: Eight mm cartridge-type films for individual use;

SLIDE 28: Flat pictures for a variety of subjects;

SLIDE 29: Overhead projector transparencies, both commercially and locally produced;

SLIDE 30: Records for a variety of subject areas;

SLIDE 31: Tape recordings, produced to fit local situations;

SLIDE 32: Maps of a variety of types, including relief maps for the blind;

SLIDE 33: Charts such as this useful one on the body;

SLIDE 34: And posters on health and safety.

SLIDE 35: In addition to single media types, teachers should have access to multi-media kits such as this extremely useful one for language development.

SLIDE 36: As pupils become increasingly diverse in background and skills, teachers need increasingly larger numbers of self-instructional materials for use by students. Growing numbers of such materials are available, this studyscope being only one of many.

SLIDE 37: Identification of desired center functions and services also provides a basis for selection of appropriate equipment.

SLIDE 38: In addition to the usual collection of projection equipment, for example, those engaged in instructional development in a school or a school system, may recognize a need for such equipment items as the language master,

SLIDE 39: Or the audiocard reader, both of which are helpful in developing a variety of visual and auditory skills.

SLIDE 40: The 8 mm cartridge-type motion picture projector, here shown with rear view screen, may be sought as a self-instructional device,

SLIDE 41: Being made more pertinent to local situations when the visual is accompanied by an audio track on a cassette recorder such as this,

SLIDE 42: Or this.

SLIDE 43: If several children need to listen to the tape, a listening box with headphones becomes a needed tool.

SLIDE 44: Those wishing to develop self-instructional programs for children may wish to consider the Polyfax studymaster which can be programmed with both visual and audio stimuli,

SLIDE 45: Making it useful at a number of levels and in a number of subject areas.

SLIDE 46: If group programming is required, this device for presenting questions and feedback on an overhead projector will no doubt prove useful.

SLIDE 47: For those seeking commercially-prepared programmed materials, this Standard programmer used with prepared reading filmstrips, which provide visual discrimination problems together with feedback, is undoubtedly useful.

SLIDE 48: Commercially-prepared programmers such as this Hoffman Reading Machine with its accompanying record, filmstrip, and workbook are also useful in providing self-instruction.

SLIDE 49: Having determined what kinds of materials and equipment should be provided by a center, staff members will need to give careful attention to the services required in order to handle the available materials and equipment efficiently.

SLIDE 50: Determining the appropriate kinds of materials to be housed in a center is only the beginning of the selection process. Then comes the equally difficult process of determining which specific examples of the media types to purchase for use by teachers. Since instructional materials center administrators cannot be knowledgeable and competent in all areas of the curriculum, it seems necessary to involve teachers in the selection process. Preview of materials by teachers in becoming cognizant of what is available and enlists their support by involving them in the development of the center program. Previewing may be handled in a number of ways, ranging from group preview sessions held on a regular schedule to

SLIDE 51: Individual previewing by master teachers.

SLIDE 52: Media, though they be of the highest quality, are unlikely to be used extensively unless catalogued in such a manner that teachers and pupils are aware of their availability. How they are catalogued will vary depending on the local situation. Many school systems choose to prepare book catalogs so that each teacher can have access to one as he does his daily planning.

SLIDE 53: Curriculum guides, with materials correlated with instructional units are much appreciated by teachers, as are special lists for grade levels or departments. Materials organized according to subjects and units seem to have special appeal to the classroom teacher.

SLIDE 54: Other materials centers prefer a card catalog method of cataloging. Cards for some materials are commercially available from sources such as the Library of Congress. Obviously, buying cards saves much time for the local cataloger. Cataloging non-print materials, having been done for a shorter time, provides special challenges. Probably one of the most useful guides to those cataloging such materials is the recent publication of the American Association of School Librarians. The next five slides show examples of cards prepared for cataloging a filmstrip and an audio tape.

SLIDE 55:

SLIDE 56:

SLIDE 57:

SLIDE 58:

SLIDE 59:

SLIDE 60: An innovative cataloging procedure followed by some instructional materials centers is a computerized storage and retrieval system. One of the centers using such a system is the USOE/MSU Instructional Materials Center for Handicapped Children and Youth. This system, the BIRS System, operates as follows: Materials acquired by the center are given an accession number and placed on the shelf according to numerical sequence.

SLIDE 61: A qualified abstractor peruses and describes each item, using appropriate descriptors.

SLIDE 62: Information on the abstract is then keypunched onto a card.

SLIDE 63: This card is then recorded on a computer tape.

SLIDE 64: As a result of this process, an up-to-date computerized catalog can be generated, listing materials according to

SLIDE 65: Author. . .

SLIDE 66: Title . . .

SLIDE 67: Or area of handicap.

SLIDE 68: In addition to providing a catalog of all materials, the computerized system can respond to specific questions of teachers.

SLIDE 69: For example, a teacher requested games for use by retarded children, elementary level, in the area of arithmetic, and received this print-out of an abstract along with a number of others. Cataloging of materials, an essential materials service, can be accomplished, as we have seen, in a number of ways and each center must select the most appropriate way for its particular population and situation.

SLIDE 70: Cataloging, however, is not the only way of alerting teachers to available materials. Displays, too, are frequently utilized for this purpose. These may be in the form of changing displays in the IMC,

SLIDE 71: Or in cases adjacent to the IMC,

SLIDE 72: Or they may be in the form of specially-selected temporary exhibits for groups coming in for special purposes.

SLIDE 73: Housing of materials so that they are readily available to those who will use them is an important service of the instructional materials center. If teachers and pupils have access to the shelves, it is helpful to store materials on a given unit or topic adjacent to each other. If the IMC staff alone has access to the storage area, this kind of arrangement is not so important. Effective ways of housing print materials have been developed over a period of time.

SLIDE 74: Books. . .

SLIDE 75: Loose periodicals. . .

SLIDE 76: And bound periodicals can be housed quite comfortably on shelves such as these.

SLIDE 77: Clippings can probably be best maintained and accounted for by housing them in folders in a file case.

SLIDE 78: Motion pictures are appropriately accommodated in specially-designed commercially-produced racks which hold films of several different sizes.

SLIDE 79: Filmstrips can be housed in commercial cabinets like those at the right, and records can be stored in commercial cabinets like those in the center section.

SLIDE 80: Some centers prefer to store records in drawers, this arrangement facilitating adding of filmstrips in the proper location.

SLIDE 81: An altermative manner of storing filmstrips is in vertical cabinets such as these where teachers and students can readily find ones appropriate to their instructional tasks.

SLIDE 82: Pictures, being of varied sizes, require varied storage facilities. Many pictures can be housed in legal size files.

SLIDE 83: Some of the larger sizes require their own specially built wooden cases, as shown here,

SLIDE 84: Or need to be stored flat in shallow cabinet drawers.

SLIDE 85: Complete with frames, overhead projector transparencies fit readily into three-drawer legal size files.

SLIDE 86: Records, if few in number, can be stored on open racks such as this, enabling them to be easily seen.

SLIDE 87: Albums fit readily on shelves such as these, or, as previously suggested, can be housed in metal commercial record album cabinets.

SLIDE 88: Commercial cabinets are also available for tapes, being designed for both 5- and 7-inch recordings.

SLIDE 89: Probably one of the most difficult types of material to house is the multi-media kit since decisions must be made as to whether the several media will be housed together or separately. One useful method of resolving this problem is to determine whether storage and distribution of the kit as a single item facilitates effective utilization of the material.

SLIDE 90: A variety of other types of media need to be housed efficiently. Programmed materials, such as these,

SLIDE 91: And three-dimensional materials such as these, can often be stored effectively on movable shelves which can be adjusted to their various heights.

SLIDE 92: Maps, always a problem to store, can be housed neatly on a movable projector cart, as shown here.

SLIDE 93: Production supplies, such as large sheets of posterboard, masonite, or plywood are readily available when stored on shallow, pull-out shelves such as those shown here.

SLIDE 94: Vertical storage slots facilitate storage of heavy materials such as felt boards, magnetic boards, and puppet stages.

SLIDE 95: The effectiveness of an instructional materials program depends, in part, on the ease with which teachers can procure media when needed for specific teaching purposes. To the greatest degree possible, it is important that teachers be able to obtain materials as simply as possible while still allowing the center to keep adequate records. Simple requisitions, telephone orders, and personal requests all contribute to ease of procurement and use. Since teachers must be able to respond to instructional needs that do not always become apparent more than a day or a few days in advance, a requirement that they always book materials a month or more in advance does not facilitate effective use of materials.

SLIDE 96: Scheduling of materials can be as simple as the system used so successfully for such a long time by librarians, as depicted here,

SLIDE 97: And here.

SLIDE 98: When materials, such as films, need to be booked two or three weeks in advance, a Kardex system, with a card for each material greatly facilitates booking. This card, containing all of the school days during a given year, enables the booker to determine at a glance where a film will be at any specific time and whether it will be available to a teacher requesting it.

SLIDE 99: If materials are delivered to classrooms, a system must be devised which enables the person in charge to know which items to pull for delivery on a specific day. Booking slips, filed under delivery date, can later be filed under return date and used for checking materials back into the center.

SLIDE 100: In a small building IMC, a simple booking system like this may suffice.

SLIDE 101: Delivery of materials and equipment within a building is a service greatly appreciated by teachers and can be achieved fairly easily by using student help.

SLIDE 102: Delivery to multiple buildings, however, becomes much more complex and requires the use of special shipping containers such as these. . .

SLIDE 103: Or this.

SLIDE 104: A frequently used system for distributing materials utilizes a school-owned truck

SLIDE 105: Which transports materials in canvas bags such as these.

SLIDE 106: Some large school systems, not having their own delivery truck, utilize the U.S. Mails rather successfully.

SLIDE 107: Here special shipping cases such as these. . .

SLIDE 108: Or this are required.

SLIDE 109: Lined envelopes like this are often utilized for print media.

SLIDE 110: Weighing materials and providing proper postage is one problem of this kind of delivery system. An additional problem is that of insuring materials against possible loss.

SLIDE 111: Particularly fortunate as far as distribution of materials is concerned are those centers having their own media vans which circulate not only materials and equipment but media consultants as well.

SLIDE 112: One service essential for provision by all centers circulating materials is material maintenance. This is particularly important in the case of films which should be checked on by an editor after every use to avoid expensive film damage. Other materials, however, should be checked to be sure that they are properly rewound and sequenced.

SLIDE 113: Centers with adequate numbers of staff members and an adequate supply of support equipment are able to provide a variety of kinds of material production support to their users. In such cases, production areas with varied kinds of equipment are located in the center.

SLIDE 114: Although centers, in general, provide only some of these services, types often provided include making of diazo transparencies from commercially-produced masters. . .

SLIDE 115: Copying slides. . .

SLIDE 116: Copying pictures and producing slides. . .

SLIDE 117: Photographing classroom activities. . .

SLIDE 118: Developing, printing, and enlarging materials. . .

SLIDE 119: Providing the services of a graphic artist. . .

SLIDE 120: Producing television programs or videotapes. . .

SLIDE 121: Producing audio tape programs. . .

SLIDE 122: And dubbing tapes for classroom use.

SLIDE 123: Some centers, such as the USOE/MSU Instructional Materials Center for Handicapped Children and Youth concentrate on identifying materials which are unavailable and on developing prototypes of such materials or adapting available ones to meet instructional needs. Examples of this type of effort are the Recorded Aid for Braille Music, SLIDE 124: The Suitcase Tutor,

SLIDE 125: And the Playtape Machine.

SLIDE 126: A number of equipment services are also required in an instructional materials center. Storage of equipment is usually adequately handled with movable shelves such as these. If women are primarily responsible for moving audiovisual equipment, it is helpful to plan storage in such a way that heavier items of equipment can be slid directly from projection carts to the shelves and vice versa.

SLIDE 127: Maintenance of equipment is, of course, essential. Trained students can do such simple tasks as replacing lamps and cleaning lenses.

SLIDE 128: Equipment break-downs which remove projectors from use for extended periods can greatly impede the media program. It is extremely helpful, therefore, to purchase equipment from a local dealer who can offer fast and competent equipment repair or to hire one's own technician.

SLIDE 129: Instructional development services are the most important services offered by an instructional materials center. Only as media people assist teachers in identifying their instructional objectives, in locating and/or producing materials that will assist them in achieving objectives, in encouraging good utilization techniques, and in helping teachers evaluate the effectiveness of their use of materials will the materials center be truly functional.

SLIDE 130: This kind of relationship does not occur in a day or a week or a month. Rather, it evolves out of the materials person's sincere desire to be of help, out of his willingness to start where a teacher is, and to lead him gently toward more sophisticated curriculum planning and materials utilization. This kind of effort may occur both with individual teachers who have specific felt needs

SLIDE 131: And with teacher groups working on a specific instructional development problem for a grade, department, or area of handicap.

SLIDE 132: Needless to say, with new materials, hardware, and instructional techniques being generated at increasing rates, pre-service teacher education in use of media is not enough. In-service teacher education should be a continuing effort of an instructional materials center staff. If in-service can be accomplished in conjunction with regularly-scheduled meetings of building staffs, grade level groups, departmental groups, groups dealing with children with specific handicaps, it is likely to be much more favorably received. If a school system provides in-service days when children remain at home and teachers can concentrate on further learning, media in-service is also facilitated.

SLIDE 133: The kind of in-service and the purposes for which it is organized should be determined by representatives of the school system staff. Sometimes it will be in the form of demonstrations of new materials, equipment or techniques by members of the IMC staff.

SLIDE 134: If these demonstrations are done with children, they become more realistic and meaningful to those observing the demonstration.

SLIDE 135: Materials utilization techniques can be studied by individual teachers by observing slide tape programs

SLIDE 136: In carrel situations such as this

SLIDE 137: And this.

SLIDE 138: Probably the best in-service efforts are those in which teachers are deeply involved. Among these are production of materials for use in specific instructional situations. Such materials may include bulletin board or flannel board materials which are lettered with stencils. . .

SLIDE 139: Flannel boards which are made quickly and inexpensively. . .

SLIDE 140: Pictures which are mounted with an iron or a dry mount press. . .

SLIDE 141: Materials which are laminated for handling by children. . .

SLIDE 142: Thermofax transparencies made either from commercially-produced or teacher-produced masters. . .

SLIDE 143: Or diazo transparencies most easily made from commercially-produced masters.

SLIDE 144: An important type of in-service activity but one which should by no means be the only such activity, is that of teaching equipment operation.

SLIDE 145: This program has dealt with some of the basic services provided by instructional materials centers in Michigan. The number of services provided by a center and the manner in which each is provided is dependent on the population to be served, the instructional program to be supported, and the functions identified as pertinent to that center. After these decisions have been made, an assessment of the staff required to perform the desired functions will be necessary. Planning of an instructional materials center is a challenging and difficult task. Well-planned and executed, however, it can be one of the most important elements in facilitating the successful teaching-learning process.

W. E. Mellon
Operations Coordinator
USOE/MSU RIMC-HCY

In order to outline the working relationships of the Regional Instructional Materials Center for Handicapped Children and Youth with local and intermediate instructional materials centers with the Divisions of Special Education, State Departments of Education in Michigan, Indiana, and Ohio it is appropriate that a brief overview of the inception and purpose of the Regional Center be presented. The Regional Center is in the twilight of its third year of operation and is preparing to assume the responsibilities of operation for its fourth year beginning this next September. A change in program has been dictated by the funding source (BEH/OE). This program change has been determined on the basis of user reaction and of program success. The program that the Center now is presenting is in a period of transition. Effective September 1 the transition will have been completed and the new dimensions and direction of the program will be in effect. More about that in a moment.

Most of you are aware that following a two-year pilot project period beginning in 1964 a network of original instructional materials centers was established by the Bureau of Education for the Handicapped, U.S. Office of Education. Each Center was assigned a geographical area or region in which it was responsible for dissemination of information pertinent to instructional materials or media. In order to discharge this responsibility this Regional Center assumed the posture of a central collection and repository agency.

The first year of activity of this particular Regional Center involved the identification of and acquisition of the pertinent and relevant instructional materials and instructional materials information for use in special education programs. At the same time a procedure was devised by which this information could be placed in the hands of those who needed it most — the teachers, the administrators involved in special education programs in the assigned region.

Following the first year's period of identification and acquisition of materials and materials information, use was made of the basic indexing retrieval system (BIRS). This particular program involves the use of the computer as a storage receptacle from which information relevant to a particular inquiry can be retrieved and provided to the respondent. Additional information is provided and has been provided in the past through use of a publication of a newsletter, "What's New?". Publications are available to those involved in special education in the tri-state area upon request. The publications range in subject matter from an explanation of an automated regional library (which the center actually represents) to and including techniques for evaluation of material, educational uses of cartridge tapes and means by which teachers and administrators can share their ideas and materials with their colleagues.

Another means of providing information based on the materials collection housed physically at the Center and as information in the computer was the use of the library and materials sections as a reference point where materials could be examined and evaluated.

Taking advantage of those instances in which groups of educators involved in special education programs could reserve a day of their professional time for in-service activity the Center provided a regular schedule of visiting day programs. Briefly, the programs involved a presentation of the Center's services, materials demonstration and time for browsing or examination of materials or consultation with members of the staff. Frequently, through prior planning, we have been able to send selected staff members on the basis of their competencies and the needs of the situation to local sites to conduct institutes or workshops, to act as consultants, to exhibit materials and to speak to groups.

I spoke earlier of a transitional program. Let me sketch briefly what has happened. In the fall of 1967 the Regional Center, attempting to explore means by which a great impact could be made in in-service education of teachers and administrators involved in special education programs in the tri-state area, entered into contractual agreements with state departments of education, establishing positions entitled "field consultant". Consultants were charged with the responsibility of being involved with the planning and development for in-service education programs in each of their states. We felt that identification with the state department of education would foster acceptance and would accelerate development. For the past two years we have been most pleased with the results of such activity.

The advancement of the in-service training programs by which materials, materials information and staff of the Center were all used has provided the impetus so that each of the states earlier in the year were able to indicate that they were now in position to undertake the total direction and responsibility of their respective in-service training programs. This was a natural and logical development. During the annual convention of the Council for Exceptional Children held in Denver in April, the Center was advised to begin phasing out activities which were directly involved with in-service programs in the region of responsibility. It is the withdrawal from such activities that represents the transitional phase of the Center's programs. We no longer can provide the services in some respects which we have been able to provide in the past. Those services are now the responsibility of the State Departments' Division of Special Education. However, certain aspects of the Center's total program will continue. We are yet a central collection and repository agency for instructional material and materials information relevant to special education program instructional patterns. We do yet provide an informational retrieval system and we yet constantly add to our information base. We are now in a position that could probably most appropriately be defined as that of "consultant". We will have contact with the field in the person of a coordinator for field activities. This person's responsibility will entail travel throughout the region on a pre-determined schedule so that an articulation of materials developments and materials information can be made to those in the Divisions of Education at the State Department level for inclusion in their in-service programs. The articulation would be a two-way street. We will constantly need specific indication of the needs, concerns, and interests represented by the professionals who day-to-day do the magnificent work with handicapped children and youth.

In lieu of the visiting day program for the on-site activities involving our staff members we are now charged with having direct activity in pre-service programs. This has, at Michigan State, been more and more a logical and natural development. Students involved in training for professional certification in special education in the past two years have made more and more use of our informational listings as references for their class work. In fact, more and more faculty members at the College have utilized the Center as an instructional resource. Other institutions training teachers in special education, such as Wayne State University, Eastern Michigan University, Western Michigan University, and Central Michigan University have brought students to the Center for an orientation session.

As of September 1 we will no longer be in a position to provide information in the form of physical materials as we have in the past. However, we do have a means by which our materials can yet be placed at the disposal of the field professional for a limited period of time. The many associations identified by particular disability categories can reserve materials for exhibit. They can indicate to the Center the type of materials they would like to exhibit. Through the use of our retrieval system we will determine what would be most appropriate to be included in such an exhibit. On the basis of our informational retrieval procedures we will then pull those materials and have them available and whatever association person is responsible for exhibiting can then come to the Center and check those materials out and use them in the display and bring them back. The coordinator of field activities will be available to go to each state departments' Division of Special Education on a monthly schedule during the year in order to monitor, to provide aid and counsel and to bring back word of developments in each of the three states. That word will be used to determine what further acquisitions should be made to the system so that the information base can grow relevant to the express needs of the field professionals.

The relationship of the Center, most specifically now and in the future, to any local, intermediate or developing network of local or intermediate instructional materials centers will not essentially change. We can provide consultant aid to such centers. We will continue to provide to centers and to individuals information as we have in the past utilizing our informational retrieval system.

Of course, our door remains open to those who have the opportunity to come on campus and spend some time here examining materials and talking with those staff members who can aid them in probating instructional difficulties.

The ensuing year of operation will involve a great deal of planning energy with the Bureau of Education for the Handicapped to determine program emphasis. We believe that the concept of "Regional Instructional

Materials Centers" is here to stay, regardless of what the funding pattern will be. We do know that throughout the country the Regional Centers' aid and counsel in helping states develop plans for local networks of IMC's and in-service programs has been more than modestly successful.

It is logical to presume that funding patterns in the future may well change, that Regional Centers will no longer be involved in across-the-board attempts to provide information for all categories and dimensions of special education programs but may well be charged with some specific specialty, either within a category of disability or within a research and development dimension of behavior or skill development. The ensuing year's planning and discussion in concert with all personnel of all Centers and of the fund source will determine what the future will hold.

PART II

Steven Yelon, Associate Professor
of Educational Psychology
Michigan State University

Construction of Precise Objectives

Out-of-class Tests (This refers to your long-run objectives in the distant future. These are found by a job-analysis.)

Your test should refer to out-of-class student performance which:

1. could be measured (given enough time and money).
2. is relevant to your objective.
3. could be given by another teacher in much the same way you would give it.
4. has some social, vocational, or educational need.

Close Simulation of In-class Tests

1. Is the behavior required in your in-class test the same kind of behavior or the closest approximation possible to the behavior the learner must use in the "real world" situation you are preparing him for?
2. Is the behavior described in your in-class test required as a final test after instruction is complete?
3. Have you considered the levels of knowledge used?
4. Have you considered the student's entry behaviors?

Terminal Behavior

1. Does the statement refer to some visible or audible action performed by the student?
2. Do the words describing the action you seek mean the same thing to most people?
3. Is the behavior the very same behavior that you expect your students to perform on the final demonstration of their learning?

Conditions

1. Does the statement of conditions include the time, materials (pencil, paper, etc.), special materials and tools (slide rule, calculator, etc.), and props (setting events in a simulated situation) over and above ordinary assumed conditions

(heat and lighting) *given* to the learner; those materials necessary and sufficient for the performance completion?

2. Does the statement of conditions include *restrictions* of time, materials, special materials, or props either associated with performance in practice or in other settings?
3. Does the statement of conditions refer to the behavior you wish to have performed as a *final* indication of performance attainment?
4. Can your conditions as stated be *duplicated* as you would have them by a colleague?

Criteria

1. Does the statement of your in-class test describe *how well* the learner must perform either *quantitatively* or *qualitatively*?
2. Are the characteristics of acceptable performance described either through

    a. descriptive adjectives, or
    b. an essential time limit, or
    c. an objective reference, or
    d. a consequential event or artifact?
3. Are *all* of the characteristics of a standard present in your statement so that the statement

    a. is objective
    b. includes a standard for each performance noted, and
    c. presents the lowest time acceptable?

Jean Lukens, Coordinator
Perceptual Development Program
Oakland Schools

TEACHING TEACHERS THE USE OF MEDIA THROUGH MEDIA

INTRODUCTION

Good things happen in classrooms when we provide a real "happening" for teachers. Merely introducing a test, a piece of equipment or some new materials does not insure their effective use in the classroom. Even very proficient and professionally trained teachers profit from some demonstrations and discussions on efficient use of the hard ware and soft ware of modern education. Our goal is to develop understanding that media are merely tools. The tape recorder, the strip film, or the transparency used on the overhead projector help the teacher present steps in learning and develop insight into concepts or processes. Media are means to an end and must be chosen selectively.

The usefulness of information which comes to us in a print-off from a computer, depends on the integrity of the data fed into it, the memory capacity of the machine and the questions asked as well as the form in which answers are requested. We recognize the need for all of these components of this process. While this is a rather far-fetched figure of speech, the teacher might be the computer — that is the receiver of information, the integrator and the disseminator of information. It seems to me that if the total job is done well, those of us working as consultants and instructors of teachers must be feeding in "well cued" information, descriptors if you please, that are held in the memory and dredged up ready for use at the appropriate time.

I'd like to speak briefly of the process of feeding information to teachers in the proper form. The media for teacher instruction must be chosen because it does the job well at the appropriate time. The appropriate time for the use of a process and/or the media for expediting the process is dictated by the question. The question the teacher must pose is developed by understanding the child's problem.

As an example of good media for instruction, I've brought along the over-head projector, transparencies, and some friends to assist me. We hope to show you in the next few minutes some ideas, which will help you to understand some differences in children and their feelings about what we are doing to them and for them. Teachers have felt this presentation is "fun thinking" with meaning for them.

Jean E. Lukens
Oakland Schools
Pontiac, Michigan

CHARLIE BROWN AND FRIENDS PRESENT LEARNING DISABILITIES AND THE SCHOOL

1. Perhaps we should ask ourselves, "Is the school ready for all children?" instead of "Has this child reached the proper stage of readiness?"
2. Can he do all school tasks, have we found his level, or is he out?
3. What do records really tell us about children?
4. Is the IQ the only determinant of potential, or must we find out more?
5. If he can't read, what can he do? Shall he sit until he is ready for the way we teach reading?
6. Are we using every sensory modality for learning?
7. Does the development of motor skills cure all learning disabilities, or are there other perceptual and conceptual problems?
8. Is he a concrete thinker instead of a bad boy?
9. How does hanguage develop? Shall we build readiness?
10. Does he have a receptive or expressive language problem? Which one?
11. Shall we give the child who can't read more of the same?
12. Do we allow some mistakes without making a federal case of it?
13. How does the child rate himself?
14. How does he feel at the end of a school day?
15. Should counseling be realistic?
16. Shall we allow him to avoid failure?
17. Can we accept something less than perfect from the child who has perceptual motor problems?
18. Can we understand tangential thinking?
19. Can the teacher foster friendship for the different child?
20. How do we provide security?
21. Does structure help make some children feel secure?

22. Do we always mention that he could do so much better?

23. Can we find a useful task for every child?

24. Are teachers good managers?

25. Can we accept less until he can do more? Can we teach words that look and sound differently for the beginning?

26. Doesn't everyone have to be somebody?

27. Can we group for more than reading?

28. Do we always have to have a number?

29. Shall we send him out for all the services he needs?

30. Is a teaching team a group?

31. Does the start of the day predict the finish?

32. Teachers, AIN'T IT THE TRUTH!

Jean E. Lukens
Oakland Schools
Pontiac, Michigan

SLIDE PRESENTATION

1. Here I come — ready or not!

   Children come to school with different stages of readiness.

2. Strike Four!

   He may be labeled lzy, uncooperative and stubborn.

3. Records

   Observation starts! The teacher looks at school records, the information sheet from home, and his everyday performance.

4. I.Q.

   The intelligence quotient may be one score that tells us something about the child, but it is considered along with other facts.

5. What can he do?

   He may not be able to read, but he can do something. We assess his assets and his deficits.

6. Speak no evil, hear no evil, but sees a lot.

   Children sometimes learn through one sensory channel better than another.

7. I would like to entitle Lucy's performance: "Developing Motor Skills with Rhythm."

   Teachers of young children can evaluate motor performance in the areas of posture, balance, agility and orientation to space.

8. "I don't really think that is playing by ear," might be a good illustration of the inappropriate behavior of some of the children with very concrete interpretation of language.

9. The Language Tree

Teachers of young children are continually studying the process of language development.

This is an outline of procedures used to take a good look at receptive and expressive language.

10. Speech and Language Evaluation

Seven years ago, Dr. Gerald Freeman and I worked on a project we based on the premise that specific deficits in speech and language were as prevalent as the visual problems which had been better defined.

11. There were too many misprints.

How does a child explain even to himself what's wrong with his reading?

12. You dropped the ball, Charlie Brown.

Many children have a whole list of problem areas.

13. Self-Concept Rating Sheet

We have used a simple instrument to help a child tell us what he thinks of himself.

14. How do we feel about life?

"I feel that it has knocked me down and walked all over me," may be a good evaluation of a child, who faces tasks that are too difficult every day to his life.

15. "Don't be discouraged, Charlie Brown. In this life there are some bitter pills to be swallowed."

I've entitled this picture, Counseling. Directive counseling in small bits is often helpful.

16. Of course, this one I've called Acceptance.

How true sometimes we'd rather not accept. May I suggest that as teachers we should look at acceptance actively instead of passively — change will occur — I'll try again attitude.

17. Great art should never be mushed up!!

Some of the children with visual-motor perception problems produce some drawings and writings that cannot really be described as art.

18. "It's nice to have a teacher who appreciates research."

The content of the composition was supposed to be on the topic of elephants, but our friend had included a story about billiard balls and perfect English being possible because the balls were made of ivory.

19. Everybody needs a friend.

I sometimes ask children to interpret or recall for me.

20. Security Blanket

Linus' security blanket would be replaced in the school situation (we hope) by giving him lessons at a level for success, teaching him in a way he could learn and providing a structure.

21. School is knowing what is expected next.

Teachers and parents have told me that the children change and behavior in all areas improved when we communicate with the child and he understands what to do.

22. On Hidden Ability

"Everyone is so upset because I didn't make the honor roll. My mother's upset, my father's upset, my teacher's upset, the principal's upset. Good grief!

23. Let's play ball, Charlie Brown.

Everyone needs a job he can do.

24. A manager learns to make the best use of whatever material he has.

Charlie is the teacher. As teachers, we learn to accept children.

25. A vocabulary List may give us some clues as to choice of words to make a beginning.

26. Yes, I'm captain of the team.

Life is great for kids when they belong, produce and have some responsibility.

27. Success is being one of the gang.

Children need their peers. When planning educational programs, it is equally important to eliminate inappropriate behavior as it is to learn academic skills.

28. This is real ungradedness, when everyone is working successfully at his own level.

A teacher's job is great when she endeavors to individualize instruction, but so are her rewards when children are productive.

29. Segmented Child

Some of the trends in the education of children with Learning Disabilities alarms me.

30. But a team is a group

And it should promote some group tinking.

31 "I never worry about how I start the day" was never said by mothers or teachers.

32. "It's how it ends up that bothers me."

Adults who deal with learning problems are invited to join the 99ers.

SLIDES SHOWING CHILDREN USING MEDIA FOR INSTRUCTION

In working with a group of teachers, it is well to define what we are trying to accomplish. Following a viewing of the series of cartoons, which might be said to be entertainment as well as instruction, more definite instruction should follow. We might suggest that teachers have reviewed through the cartoons' characteristics of behavior, learning problems, self-concept evaluations and suggested services and management. An orientation might go like this:

> Since as teachers we are well aware of the deficits and assets of the children in our classes, let's take a look at some techniques of teaching and the efficient use of some materials. We shall show the use of both auditory and visual channels to help you learn — just as you do with children.
>
> One very great difference will be that we are showing you a great variety of things. You are able to store the ideas and the sources and to recall them at the proper time for use. We are trying to eliminate the "motivation only" and the "shopping bag" approach to selection of techniques and media. The teacher who says, "I could use that idea to help Joe develop insight into the terminology used in his math," is showing considerably more insight himself than one who says, "My kids would have a ball with that lesson."

Let's look at children learning through various media. Each child's problem is diagnosed and his learning modality is determined. Today we are showing each child at "a point in time" of the sequence planned for him. His learning problem, his age and his interest are part of the diagnostic information, as well as are his assets and deficits. These must all be considered if we are to meet his needs. We may even call this prescriptive teaching. However, the prescription must be based on the diagnosis. The effectiveness of the prescription depends on the remediation, the dosage, and the time schedule.

Jean E. Lukens
Oakland Schools
Pontiac, Michigan
6/10/69

The slides to be presented were selected because they show cause or result of understandings developed in teacher workshops. Many of them have been used as the basis for developing skills, knowledge of curriculum content or introduction of a technique for teaching teachers and/or children.

Prescriptive teaching or clinical teaching cannot be used effectively by teachers until they have many basic skills. Some of the ideas promoted in in-service education must be graphically presented to make the best use of teacher time and skills. No inference that teachers cannot turn abstractions into concrete procedures is intended, but rather this process is suggested in the interests of economy of time and effort.

The presentation of slides to teachers has been our most productive media for instruction. The demonstration of materials and media for instruction without suggesting specific use has not been productive. The pictures of children participating in activities and discussions following have resulted in good communication with teachers. It should be noted that the particular teachers helped most by these procedures are trained in educational diagnosis and have varying degrees of sophistication in interpretation of all diagnostic data.

This set of pictures is covering a variety of subjects and is not meant to depict continuity in curriculum but rather selected subjects which have been presented at different times. We are asking you to view the media of slide presentations for in-service education of teachers.

J.E.L.
6/10/69

SLIDE PRESENTATION

L. Teachers learn from the use of media before they adapt the tools for teaching. Workshop where teachers use various materials under supervision and view materials as well as develop skill themselves, are reported to be helpful.

2. What is the purpose of teaching physical skills? Teachers have heard that developmental exercise is essential for teaching children. We ask them to define purpose and kind of tasks to be used.

3. The teacher must organize for group teaching. Learning to hold children's attention and use physical placement of children as a basis for sustaining attention is learned by a student teacher.

4. Establishing a routine for the housekeeping tasks, helps the teacher to organize group for action.

5. Use equipment suited to the child's ability. In teaching a task like throwing and catching, the teacher needs to choose equipment considering the child's ability.

6. Successful.

7. After a series of trials at helping a child tying his shoe, the teacher needs to know when to stop and find a new way to teach the task as well as making use of support from a child who has learned this task.

8. The task will be simpler when the teacher uses some simple real equipment scaled to need.

9. We purchase equipment, or make it to develop the skill diagnosed as the child's problem.

10. Material must be built to make a task easy. You will note the sled runner balance board activity may be used prior to the cube for teaching balance and in one direction.

11. The "poor man's trampoline" is one example of equipment that can be used for individual or group teaching.

12. Sometimes we ask children to sequence the task for us.

13. Children often teach us to communicate skills for teaching other children better than adults can.

14. Physical problems can be definitely diagnosed and carried out with school equipment when the teacher understands the problem.

15. Specific testing of the child's knowledge of body parts leads to the prescription for teaching.

16. To understand facial features of the face is a part of the child's body knowledge. Teacher skill in deciding the time for the introduction of a diagramatic figure is important.

17. Folders help to organize the child for work.

18. Well-structured lessons and activities means the child is productive.

19. The equipment in the classroom can be chosen so the teacher is stationed to help the child.

20. "Stand up" activities help sustain attention of the hyperactive child.

21. A teacher adapts the "stand up task" to the student.

22. Useful materials displayed for the child are not distracting to him.

23. Sometimes taking pictures of an activity helps us to observe what should be corrected in the setting for the child. Note the height of blackboard.

24. Another pre-writing activity described in the literature which the teacher needs to observe and evaluate.

25. Eye-level activities are needed for some children with particular problems in vision and/or perception.

26. An easily grasped pencil produces more for the child with fine motor coordination problems.

27. Writing activities with letters taught as parts to whole are essential for some children.

28. Writing can be a reward as it is for the child writing the word "unbirthday."

29. Organization takes place when the child learns to learn a siill sequence.

30. The teacher must know the whole sequence of an activity before presenting the activity.

31. Supervision of many tasks simultaneously is possible when the teacher knows the proper diagnosis and helps the child with his task.

32. Coding activities in designs are helpful to the child in following direction and in organization in space.

33. Using some of the tools for teaching blind children is effective for children with perceptual problems.

34. Some of the large print materials for partially-sighted should be available to all teachers.

35. A teacher learns to evaluate size of print and arrangment in the pages of workbooks.

36. Sometimes children can be taught the temporal sequence and foreground, background evaluation by a series of slides.

37. The teacher describes the idea of movement as children look at the slides.

38. Vocabulary words are taught as the child observes.

39. Temporal sequence with space interpretations is understood by children if presented correctly.

40. The passing of time and objects is realized as the sequence is viewed.

41. Children learn sequence in words and letters as they do objects.

42. The communication process in learning the exercise is enhanced by visual, manipulative and auditory clues.

43. Grouping and re-grouping terminology can be taught graphically.

44. Magnetic board is effective for the change of numbers from the horizontal to the vertical equations as well as in teaching the missing number.

45. The Abacus is used here to teach the sequence skills. Here a cerebral palsied child learns ordinal and cardinal numbers.

46. The teacher learns to study the domino and vertical patterns in numbers.

47. A teacher shows that the patterns change but content is the same.

48, 49, & 50: Developing the concept of "more than" helps the child learn the partial counting process.

51. The tape recorder is used for content learning.

52. The child who cannot read must not be penalized by his reading problem.

53. Some children have the skill for operating equipment and the need to help others.

54. Children learn through auditory skills.

55. Some special techniques are easily constructed when we understand the child's problem. A textbook can be read if eyes are not allowed to wander up and down the page. A window marker might be tried before investing in a tachestoscopic device.

56. Words mounted on colored cards are useful in increasing the stimulus.

57. The reading laboratory can be introduced with well-known lessons used before programmed texts.

58. For children who do not have good immediate recall, the visual clue may be a context one.

59. Gillingham's methods for teaching words can be simplified for student self and partner help.

60. The problems of the children may be different, but the skills to be learned are the same.

61. Materials and equipment for teaching acoustically handicapped can be adapted for children with good hearing but receptive or expressive language problems must be defined.

62. Tactile clues reinforce visual and auditory ones for the immature learner.

63. Touch typing may be a useful learning tool.

64. Letters are made into words by the use of any material.

65. Writing is a slow laborious process for some children. Typewriting may be a good substitute skill.

66. Helping children build parts to a whole may be learned with simple tools.

67. The skill may be learned by the older child with materials at a more sophisticated level.

68. When asked, "How do you work a puzzle?", the child tells how he started by using the edge cues and now looks at the picture.

69. A paper and pencil lesson is accomplished better after a "fit together" simple puzzle.

70. This is Kuki, who has some behavior problems I had to change. Children learn to interpret their own behavior by a description of animal behavior.

71. What is he saying?

72. This cat is SuLu. She does not scratch the hi-fi screen.

73. She is very selfish.

74. Both cats like heat, but they play tricks on each other.

75. Kuki finds a spot to rest while I read.

76. Here they are in bunk beds.

77. SuLu watches me work.

78. The teacher is the key. How do you use the materials of teaching?

79. Facility is not always ideal but teaching can be at the Cove School, for example.

80. Let's get back to how each child learns and build the program to suit the child.

PART III

Patricia P. Radcliffe, Instructor
Audiology & Speech Science
Michigan State University

"EDUCATION MEDIA FOR CHILDREN WITH IMPAIRED SPEECH"

Speech correction programs in the public schools have grown rapidly since 1940. Before that time, only 9 states had passed legislation allowing for speech correction services. Today, at least 42 states have some type of legislation providing special services for children with impaired speech. This has been a welcome change when one considers that an estimated 5 to 10% of all children may be expected to have speech problems.

The responsibility of the public school speech clinician is to identify those children with speech problems, to evaluate the nature of the problem, and to plan an appropriate remedial program.

In identifying and evaluating the particular speech problems, the clinician may use informal testing procedures or published tests of articulation, discrimination, memory span, and language comprehension and expression.

During the remedial program — a learning process guided by the clinician — the speech clinician often draws from various educational media thus enabling him to more efficiently and effectively provide help to the child with a speech problem. Electronic equipment such as tape recorders, Language Masters, tape loop systems, record players, auditory trainers, and telephone systems are frequently used to aid the child in recognizing and overcoming his speech difficulty.

Other media basic to the work of a speech clinician are mirrors, chalk boards, bulletin boards, and felt boards. Motivational materials such as commercially prepared card and board games, homemade games flash cards, object boxes, pictures, puppets, dittoed materials, speech books, story books, records, and film strips can all be employed in aiding the clinician and the child in achieving the stated objectives of the remedial program.

The bibliography isted on the next few pages provides sources for educational media that can be used in working with children who have speech problems. A list of such sources will be valuable to any prospective resource media personnel.

SOURCES OF EDUCATIONAL MEDIA FOR SPEECH AND LANGUAGE SERVICES

Alexander Graham Bell Association for the Deaf
Volta Bureau
1537 35th Street, N.W.
Washington, D. C. 20007

American Guidance Service, Inc.
720 Washington Avenue, S.E.
Menneapolis, Minnesota 55414

American Southern Publishing Company
Northport
Alabama

Appleton-Century-Crofts
Programming Department
440 Park Avenue South
New York, New York 10016

Arion Products
1022 Nicollet Avenue
Minneapolis, Minnesota 55403

Bell and Howell
Audio-Visual Products Division
7100 McCormick Road
Chicago, Illinois 60645

Boston University Speech and Hearing Center
Boston
Massachusetts

Bowmar Records, Inc.
10515 Burbank Boulevard
North Hollywood, California 91601

Milton Bradley Company
Springfield
Massachusetts

Children's Music Center, Inc.
5373 West Pico Boulevard
Los Angeles, California 90019

Chronicle Guidance Publications, Inc.
Moravia
New York

The Clarke School for the Deaf
Northampton
Massachusetts

Columbia University
Teachers College
Bureau of Publications
New York, New York

Communication Skill Builders, Inc.
P.O. Box 7205
Phoenix, Arizona 85011

Communication Skills, Inc.
238 Crosby Avenue
Deal Park, New Jersey 07723

Community Playthings
Rifton
New York 12471

Creative Playthings, Inc.
Princeton
New Jersey 08540

The John Day Company
62 West 45th Street
New York, New York

Developmental Language and Speech Center
Kent Intermediate School District
60 Ransom, N.E.
Grand Rapids, Michigan 49502

Di-Bur, Card Games
Box 1184
Pueblo, Colorado 81002

Ed-U-Cards Manufacturing Corporation
Long Island City
New York

Educational Activities, Inc.
P.O. Box 392
Freeport, New York 11520

Educational Psychological Research Associates
P.O. Box 741
Tempe, Arizona 85281

Educational Science Service
East 64 Midland Avenue
Paramus, New Jersey

Educational Services, Inc.
P.O. Box 219
Stevensville, Michigan 49127

Educator's Publishing Service
301 Vassar Street
Cambridge, Massachusetts

Electronic Futures, Inc.
57 Dodge Avenue, Box A-11
North Haven, Connecticutt 06473

Encyclopaedia Britannica Films, Inc.
425 North Michigan Avenue
Chicago, Illinois 60611

Expression Company
P.O. Box 11
Magnolia, Massachusetts 01930

Eye Gate House, Inc.
Jamaica
New York 11435

Fearson Publishers, Inc.
2165 Park Boulevard
Palo Alto, California 94306

Fisher-Price Toys, Inc.
East Aurora
New York

The Garrard Press
Champaign
Illinois

The Gelles-Widmer Company
St. Louis
Missouri

Gerber Company
Fremont
Michigan

Ginn and Company
Statler Building
P.O. Box 191
Boston, Massachusetts 02117

Go-Mo Products, Inc.
P.O. Box 143
Waterloo, Iowa 50704

Harper and Row
49 East 33rd Street
New York, New York

H. C. Electronics, Inc.
Belvedere-Tiburon
California 94920

Hudson Photographic Industries, Inc.
Educational Division
Irvington-on-Hudson
New York 10533

Ideal School Supply Company
Oak Lawn
Illinois 60455

University of Illinois Institute for Research
on Exceptional Children
Urbana
Illinois

Imperial Productions, Inc.
Newman Visual Education
2023 Eastern S.E.
Grand Rapids, Michigan 49507

Indiana University
Bloomington
Indiana

The Institute of Modern Languages
1666 Connecticut Avenue, N.W.
Washington, D. C. 20009

Instructional Materials Center
Kent Intermediate School District
49 Barclay, N.E.
Grand Rapids, Michigan 49502

Instructional Materials Center Network for Handicapped
Children and Youth — By regions
USOE/MSU IMCHCY
343-B Erickson Hall
Michigan State University
East Lansing, Michigan 48823

Instructo Corporation
Paoli
Pennsylvania

Interstate Printers and Publishers, Inc.
Dansville
Illinois 61832

The University of Iowa
Bureau of Educational Research and Service
Division of Extension and University Services
Iowa City, Iowa

Kenworthy Educational Service, Inc.
Buffalo
New York

The King Company
P.O. Box 453
West Sacramento, California 95691

Mattell, Inc.
Hawthorne
California

Media
P.O. Box 2005
Van Nuys, California

Charles E. Merrill Books
Columbus
Ohio

PlaySkool Manufacturing Company
Chicago
Illinois 60618

RIL Electronics, Inc.
Street Road and Second Street Pike
Southampton, Pennsylvania 18966

St. John's School for the Deaf
3680 South Kinnickinnic Avenue
Milwaukee, Wisconsin

Scott, Foresman and Company
1900 East Lake Street
Glenview, Illinois 60611

Selected Creative Communications
Box 6723
Long Beach, California 90815

Sifo Company
St. Paul
Minnesota

Sound Materials
Box 453
Knoxville, Tennessee

Speech and Language Materials, Inc.
P.O. Box 721
Tulsa, Oklahoma 74101

Speech Materials
Box 1713
Ann Arbor, Michigan

Stanwix House Printing and Publishing, Inc.
3020 Chartiers Avenue
Pittsburg, Pennsylvania 15204

R. H. Stone Products
18279 Livernois
Detroit, Michigan 48221

Teaching Resources
Inquiry Department F-O
100 Boylston Street
Boston, Massachusetts 02116

Charles C. Thomas Publishers
327 East Lawrence Avenue
Springfield, Illinois

Tok-Back, Inc.
P.O. Box 5045
Berkeley, California 94715

Webster Publishing Company
St. Louis
Missouri

Western Psychological Services
12035 Wilshire Boulevard
Los Angeles, California 90025

Whitehaven Publishing Company
Box 2
New Richmond, Wisconsin 54017

Word Making Productions
P.O. Box 305 Department C
Salt Lake City, Utah 84110

Wolfer Printing Company, Inc.
John Tracy Clinic
416 Wall
Los Angeles, California

Joyce Kohfeldt, Consultant
Ingham Intermediate School District

TEACHER-MADE MATERIALS — WHY BOTHER???

As we view the student in a learning situation, for the most part we view satisfying achievement and the strengthening of the individual's self concept as a successful achiever "One who can". This happens frequently enough that we tend to overlook, minimize, or take for granted the many crucial elements which make up the learner's struggle for success.

However, if we view the STUDENT AMIDST THE STRUGGLE to understand and comprehend rather than the END PRODUCT of accomplishment or failure, we are suddenly cognizant of the myriad of forces and factors which may preceed failure or achievement. Those of us dealing with special children have attempted to increase the probability of success by:

1. utilizing special materials;
2. modifying the environment and expectations related to both achievement and behavior standards;
3. breaking down learning tasks into smaller more manageable segments;
4. supplying additional support, encouragement, and motivation;
5. and rewarding desired behavior and achievement at the varying degrees of reinforcement scheduling.

Teacher-made materials provide us with one opportunity to implement these techniques and procedures. The market today has suddenly been flooded with material supposedly designed specifically for the needs of special children but many of these are beyond the budgets of school programs. Some of the ideas, however, may be adapted with much less expense and with a specific child in mind with special tailoring of the aid for his individual needs.

Modifying the environment and expectations may be accomplished through teacher-made materials. Here we have the option to control what the child must face visually in a learning task. Inappropriate pictures, size, print, unnecessary detail as well as complicated directions can be eliminated. Also, the level of performance expected of a child may be more flexible. Cutting down upon the number of problems, and presenting techniques which make work self-checking might be two examples. By increasing the child's probability for success, we are on a prevention basis manipulating his behavioral responses. The succeeding child does not require as many avoidance or defense behavior patterns as the child who fails time and time again. Allowing the child to succeed also gives the teacher a chance to use positive reinforcement and praise to promote the motivation and achievement necessary for further new learning.

Breaking learning tasks down into smaller segments allows us to focus upon the specific aspects of a process which may be causing difficulty. The creation of devices to master these bite-size elements in a learning situation allows us to separate the trees from the forest (e.g. learning consonant sounds vs. inability to read). This is probably the most difficult area for teachers because there are no generalized answers. Individual learning styles as well as disabilities suddenly make the "usual" way of teaching ineffective.

A teacher-made device or aid provides additional support and encouragement for a child by the simple fact that he knows that the teacher invested her time and effort in an attempt to assist him in a specific area. In a very personal way, we are investing in the relationship between teacher and student.

Motivation on the part of the student may be high if the device can provide him with a pleasurable way of practicing on some area which has caused him difficulty in the past. Many of these devices can be set up on a game format which allows for children working together in small groups or with their parents in a situation which is less threatening and frustrating than sheer drill work.

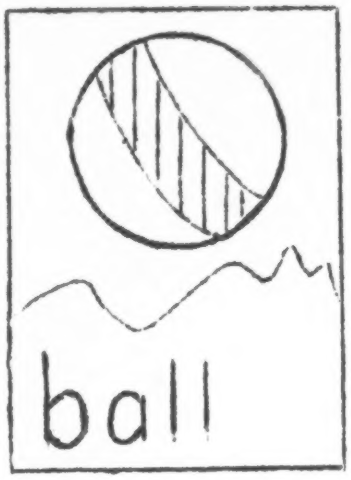
Nothing succeeds like a little success whether it relates to healthy competition between students or allowing a child to see that he has just beat his own record. Rewarding appropriate behavior and achievement may range from a primary reward to the satisfaction of knowing that one has achieved a desired goal. The need for teacher involvement for providing encouragement and reinforcement may be diminished through self checking techniques and child-to-child team learning techniques. Hence, the child learns independence and self reliance. He begins to perceive himself as an achiever "one who can".

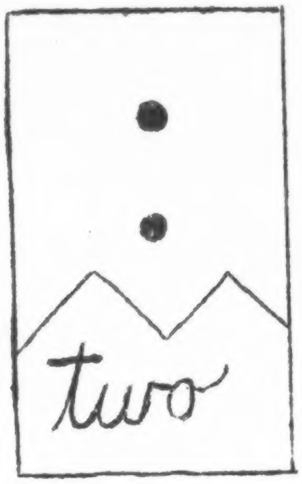
Teacher-made materials — WHY BOTHER??? The opportunity to manipulate some of the variables discussed may mean the difference between success and failure for a learner. That makes it worth the investment of time and effort.

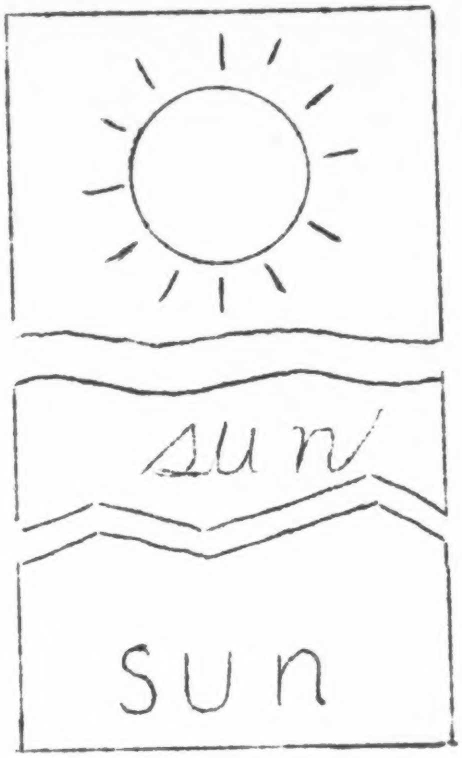
Some additional hints for simplifying devices are included on the following pages.

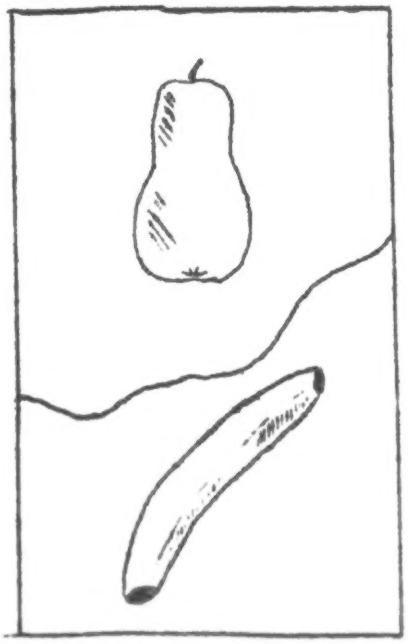
CUT CUE

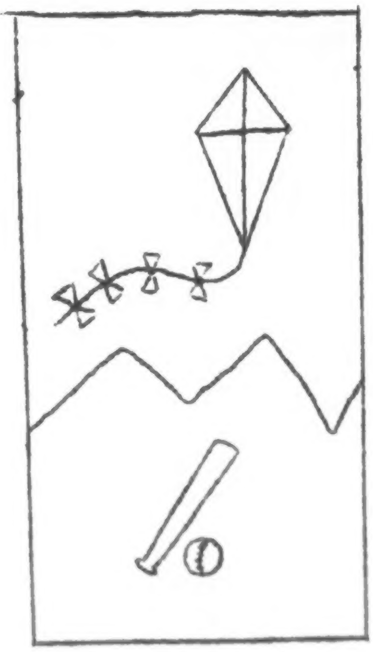
Use cut cue to insure success. In this instance, the parts fit together and reinforce the correctness of the response.



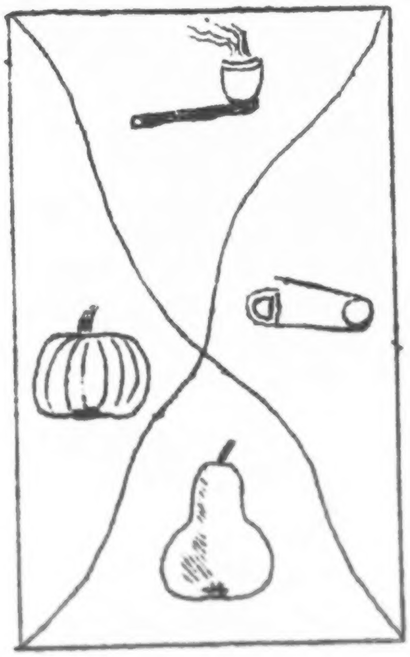








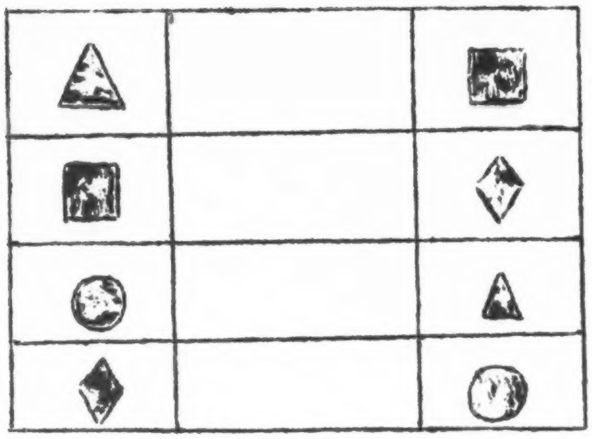
CATEGORIES



BEGINNING SOUNDS

SMALL SEQUENTIAL STEPS

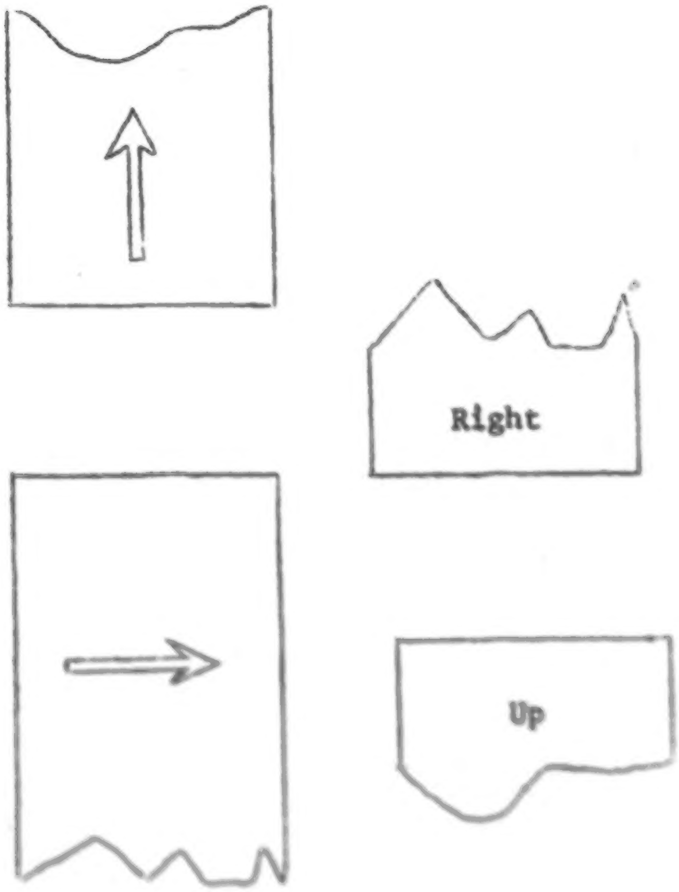
Use small steps to eliminate unnecessary confusion. Directions which are lengthy or involved often prevent the child from achieving where the necessary skills have been mastered.

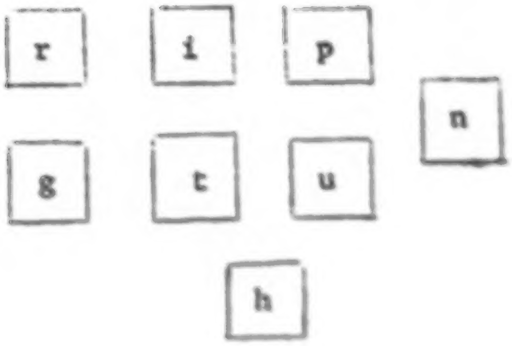


On such a matching task, the job could be organized by showing the left side as "my" side and the right side as the "child's side". From here the instructor might say, "Here is my circle. Where's yours?"

In a task involving several steps, it may be necessary to have the child organize separately for each step. If a child is to match up pictures to words and then spell out the words from a set of letters, the task might be organized as such:

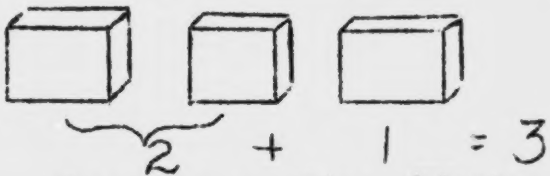
1. separate the pieces
2. match all the words and pictures
3. now spell the words





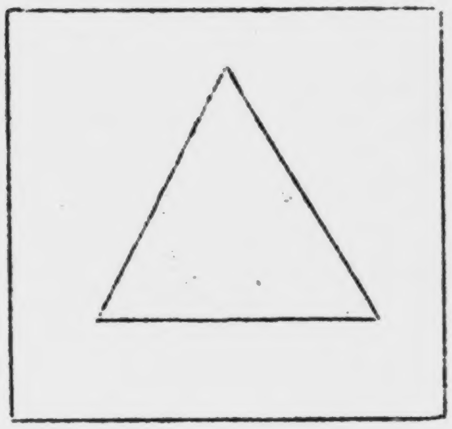
MANIPULATIVE MATERIALS

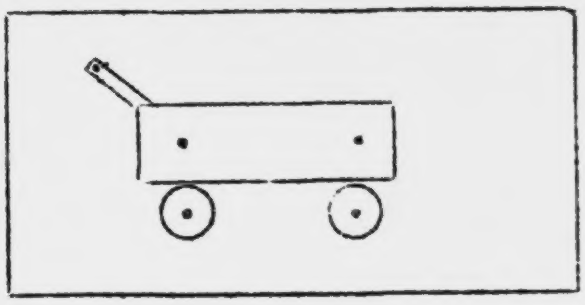
One way to increase a child's attention span is through the use of manipulative devices which require his whole attention. Such materials also provide the concrete steps which make later abstract learning possible for these children. Fine motor skills can also be improved through some of these techniques.

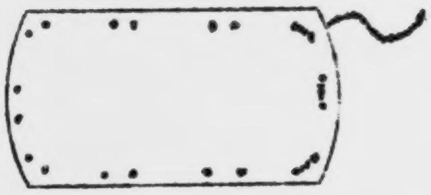


Concrete counting objects make math concepts possible.

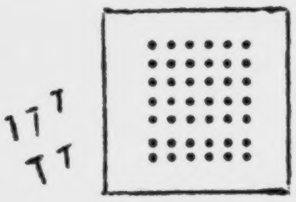
Templates provide precise practice in shape formation and coordination control.





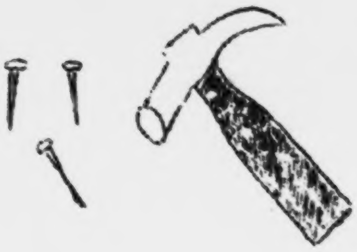


Lacing activities increase hand-eye coordination and teach shape concept, over-under concept, and alternating principle.



Pegs and a pegboard may teach color matching, line formation, fine motor control, and pattern synthesis, and spacial relationships.

Small hammer, nails, colored wooden shapes and the learning of part-whole relationships can take place.



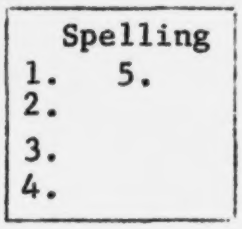
2

REDUCE QUANTITY

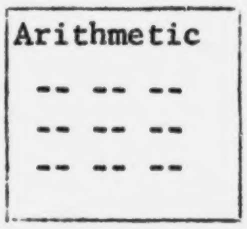
Reduction of quantity has two aspects. First of all cutting down on how much we expect of a child overall. eg. We may give one child only five spelling words instead of the regular number of 20. Secondly, we cut down upon the amount of work on any one page.

File
Folder

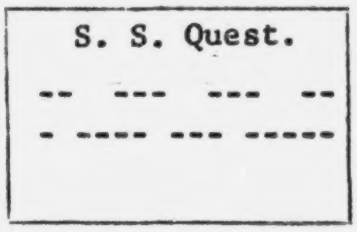
file folder with separate pages instead of whole workbooks



fewer words

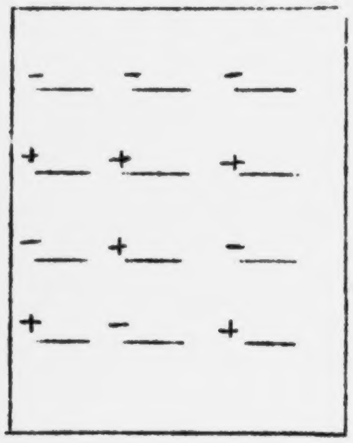


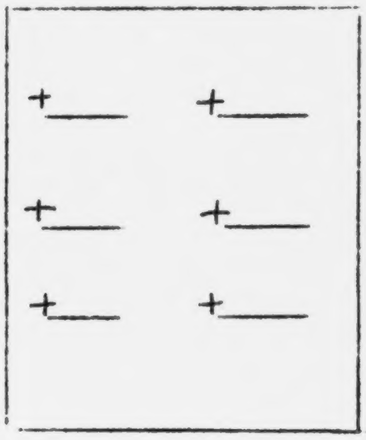
problems already copies

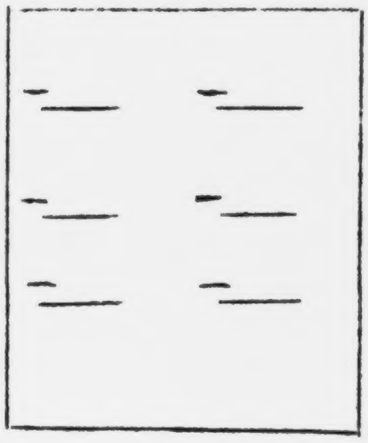


child only writes answers

A page of twelve may be threatening and may cause special difficulties for the child with background-foreground difficulties. Two pages allows more space between problems and also provides the success of completing two tasks in relatively short periods of time.



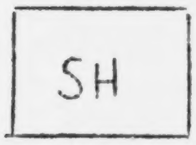




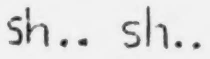
REINFORCEMENT

These children need special types of reinforcement and usually require it more frequently.

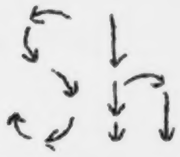
In learning situations, it may be necessary to couple different sensory experiences in teaching a concept.



Visual stimulus in a flash card

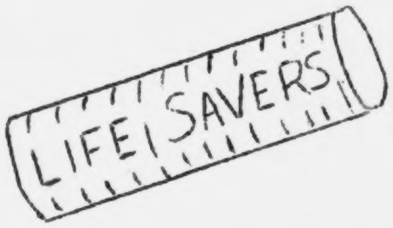


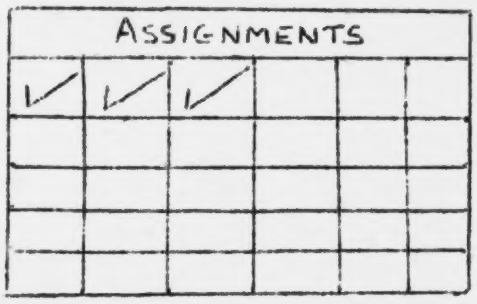
Hearing the sound while seeing the card

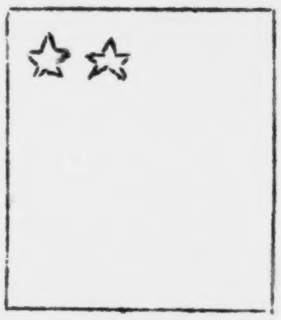


Tracing the form of the letters.

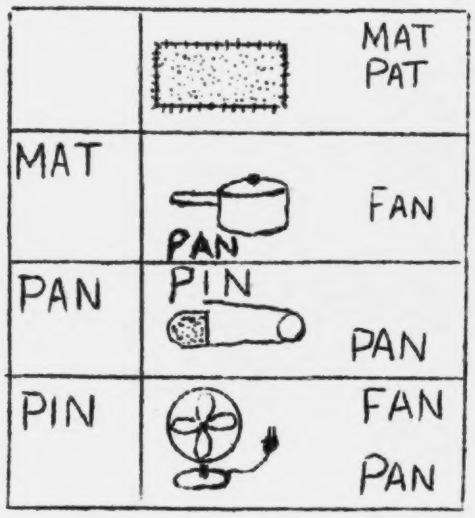
To help the reluctant child, it may be necessary to program reinforcement through adult attention or approval on a regular basis until the inner confidence of the child no longer requires such assistance.

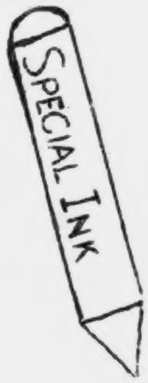

LIFE SAVERS

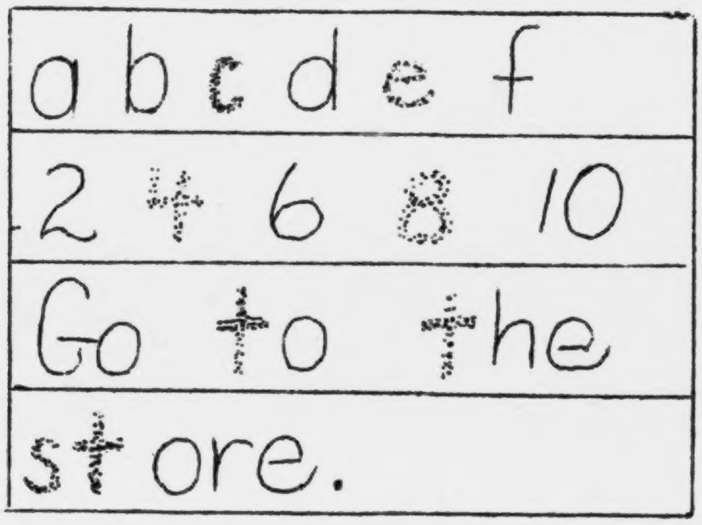

ASSIGNMENTS



Special programming may result in immediate feedback to reinforce the correctness of a response. Programmed reading where the child is corrected after each frame is one example. Self-corrective instruction in the form of materials impregnated with special invisable ink which reacts with a chemical in a special writing implement which must be used with the program is another example.


MAT
PAT
MAT
PAN
FAN
PAN
PIN
PAN
PIN
FAN
PAN

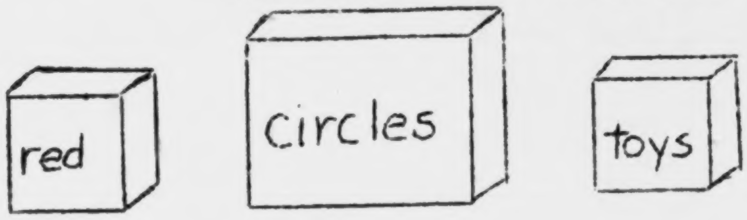

SPECIAL INK

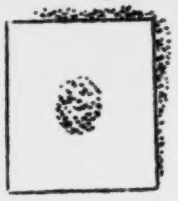

a b c d e f
2 4 6 8 10
Go to the
store.

SORT AND MATCH TECHNIQUES

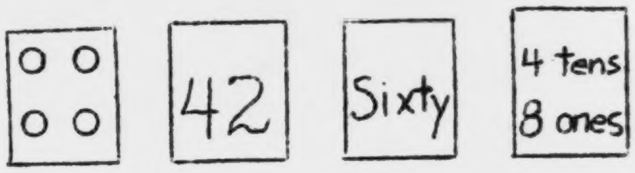
Sorting and matching permits the child who may not have all the writing skills to develop concepts while not involving skills not ready to develop.

Such tasks also help develop the ability to organize and generalize information into categories.





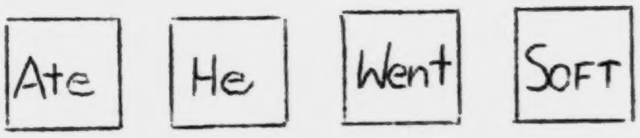
Cards with stimulus to fit any desired categories.



Number-sorting can be by configuration patterns, numerals, or number words

1-10	11-20	21-30	31-40	41-50
51-60	61-70	71-80	81-90	91-100

NOUNS	ADVERBS	PRONOUNS
VERBS	ADJECTIVES	



Such a technique can be extended to more complicated tasks.

Donna Hiener, Teacher
Michigan School for the Blind

This booklet is organized in three sections. Section I is a listing of commercial materials suitable for use with blind or partially sighted students. The following information is given for most of these materials: IMC-HCY number, name of article, producer, price, brief annotation. Section II deals with equipment (for example, the overhead projector) which can be adapted for use with the visually handicapped. In Section III, a bibliography is presented which may help the teacher in both producing and utilizing audiovisual media in the classroom.

I. MATERIALS

A. Sources of Information for the Teacher of the Visually Handicapped

CM 12443	Dorward, Barbara, and Barraga, Natalie. Teaching Aids for Blind and Visually Handicapped Children. AFB, 1968. Instructions for producing various teaching aids.
CM 01948	Fulker, W. H. Techniques with Tangibles. Charles Thomas, 1968. How to use the theroform process in teaching.

B. Social Skills

E 1425	Table Place Setting Board. Tactile Aids for the Blind. $5.00. Emphasis on proper table placement with recessed place.

C. Visual Perception and Visual Motor Coordination

AV 1592	Reading Readiness. Eyegate Filmstrips. $43.00 per ten filmstrips and manual. Recognition phrases; auditory discrimination; story practices; visual discrimination; classifying; similarities; differences; alphabet; left-to-right sequences; stories for special days.
E 1251	Rubber Oversized Parquetry. Creative Playthings. $3.95. Recognition of shapes and angles.
CM 1411	Frostig, Marianne. Frostig Developmental Test of Visual Perception. Follett. Set for $3.70.
CM 1881	Frostig, Marianne, and Horne, David. The Frostig Program for the Development of Visual Perception. Follett. $96.90.
E 2538	Pre-writing Design Cards. Developmental Learning Materials $3.00.
E 2219	Seasonal Stencils. Developmental Learning Materials $3.50.
E 1410	Visual-Motor Perception Teaching Materials. Manual Teaching Resources. $65.00 Kit containing eleven sets of cards, games, puzzles.

CM 1808	*Visual Tracking*. Ann Arbor Publication. Letters in decreasing sizes; for visual discrimination, left-to-right, skill in following line of print (could be adapted and put in large type).
CM 1869	Slingerland. *Screening Tests for Identifying Children with Specific Learning Disability*. One set for $1.25.

D. Auditory Discrimination and Recognition

E 1918	*Auditory Trainerette, Model 1*. Wisconsin Audio Equipment. $35.00. Used with normal hearing people to emphasize sound in the teaching of sound discrimination and production.
AV 1196	*What's Its Name?* Auditory Training Album. Maico Company.
AV 2562	*Familiar Sounds*. Auditory Training Album. DLM. 1968.
AV 2465	*Sounds for Young Readers*. Classroom Materials Co. Kindergarten level.
E 2555	Buzzor Board and Pattern Cards. Developmental Learning Materials $8.25. For auditory training.

E. Tactual Discrimination

CM 1996	*Touch and Tell*. American Printing House for the Blind. To stimulate thinking and discussion through sense of touch.
E 905	Geometric Shape Inset Board. Daigger. $4.25. For shape discrimination.
E 1165	*Roughness Discrimination Test*. American Printing House for the Blind. $28.00. Sandpaper cards, scoring sheets furnished; for kindergarten and first grade level to test pre-reading readiness.
E 836	Desk Map of the U.S. Braille Outline. American Printing House. $.85.
CM 1347	*Letters Are for Fun*. Touch Aids. $6.75. Embossed alphabet and illustrations.
E 949	Territorial Expansion Map. American Printing House. $2.50. Vacuum-formed map of continental United States.
E 1423	*Textured blocks with divided rack*. Tactile Aids for the Blind. $15.00. Sixteen blocks with contrasting textured faces, drilled holes, numbers 1-4, grooves.

E 1426	Progress Development Project No. 1. Tactile Aids for the Blind. $10.00. Raised shapes on plywood plaques: eight to a set. Mobility readiness, tactual perception. (tactual closure — pre-reading skills)
E 1272	Aids for Initial Perception Training. Ladoca. $27.50. Seven items for initial perceptual capabilities: skeins of colored yarn, odor containers, sound boxes, wooden sticks, tile board, colored chalk, matching nails.

F. Games

E 1004	Tic-Tac-Toe. Touch Aids. $2.25. Recessed Inserts, ten pegs, braille and print directions.
E 1007	Walk the Doggie. Touch Aids. $3.25. 3-D game for recreation and sense of touch.
E 1008	Braille Map Game. Touch Aids. $3.50. Game to teach states and their locations.
E 1005	Run, Mouse, Run. Touch Aids. $3.00. For 2, 3, or 4 players to develop tactual and kinesthetic skills.
E 1006	Touch Ringo. Touch Aids. $4.00. For vocabulary development, phonics, tactual discrimination.

G. Academic Skills

READING AND SPELLING

E 1429	Word Spelling and Object Association Box. Tactile Aids for the Blind. Two bins and ten items to match braille words.
E 1424	Blocks and Spelling Board. Tactile Aids for the Blind. $10.00. Spelling board and rectangular blocks; letters and numbers, punctuation, learning braille, arithmetic, sentence construction.
D 1294	Shape of Things: Rockets and Space Ship. American Brotherhood for the Blind. Embossed pictures to accompany text material; page in print opposite braille so parent can read along.
E 1347	Letters are for fun. Touch Aids. $6.75. Alphabet book for the Blind.

ARITHMETIC

E 1144	Circular Slide Rule. AFB. $2.95.
E 1266	Bead Frame. SRA. $13.00. Arithmetic concepts.

E 1427	Money Project. Tactile Aids for the Blind. $9.00. Twelve boards with coin combinations; math and social skills.
E 1428	Magnetic Board and Magnetic Number Tiles. Tactile for the Blind. $25.00. Grooved at the top. For math skills and tactual discrimination.
E 920	Numeraid Abacus. Nasco. $2.50. Modern version of the abacus.

WRITING

E 1421	Classical Magnetic Board. Jergo. $14.50. Can be used with magnetic cord.
E 1010	Flexible Magnetic Cord. Ed. Scientific. $2.50 for 8 feet. A script writing aid for the blind.
E 872	Marks Script Guide & Manual. American Foundation for the Blind. $5.45. Permits the blind to write script.

II. EQUIPMENT

A. Polyfax Studymaster

1. Uses
    - a. Academic skills: arithmetic, reading readiness
    - b. Social skills: telephoning
    - c. Science concepts: seasons, scientific principles
    - d. Experience stories

2. Advantages
    - a. Use with partially sighted
    - b. Visual and auditory input
    - c. Reusable

3. Disadvantages
    - a. Possible glare from cover

B. Language Master from Bell & Howell ($250.00)

1. Uses
    - a. Adapt regular cards
    - b. Teach braille contractions
    - c. Experience stories in braille and large print
    - d. Concept development
    - e. Visual discrimination and perception
    - f. Arithmetic concepts

2. Advantages
    - a. Visual and auditory input
    - b. Reusable
    - c. Programs available
    - d. Adaptable
    - e. Use with both blind and partially sighted

3. Disadvantages
    - a. Card moves along track

C. Audio Flash Card from Electronic Futures

1. Uses
    - a. See Language Master

2. Advantages
    - a. Good programs for use with partially sighted
    - b. Card stationary
    - c. See Language Master

D. Overhead Projector

1. Uses
    a. Prepared transparencies
    b. Silhouette technique
    c. Projecting transparent objects

2. Advantages
    a. Use with partially sighted in small groups
    b. To focus attention
    c. Programmed instruction
    d. Teacher faces students

3. Disadvantages
    a. Not suitable for large groups of partially sighted

E. Cassette Player

1. Uses
    a. Story telling
    b. Talking word list
    c. Auditory discrimination and recognition
    d. Direction-following
    e. Auditory comprehension

2. Advantages
    a. Portable and easily operated
    b. Reusable
    c. Use with both blind and partially sighted

F. Thermoform

1. Uses
    a. Early number concepts
    b. Maps
    c. Raised drawings
    d. Shape discrimination

2. Advantages
    a. Reusable
    b. Permits large-scale reproduction of tactual material
    c. Can be used at any grade level

3. Disadvantages
    a. Size and height limited
    b. 3-D materials may not be tactually perceived

G. Production Equipment

E 857	Raised Line Drawing Kit. AFB. A practical means for the blind to produce drawings.
E 873	Dymo Braille Tapewriter. AFB. $29.00. Device for brailling plastic labels.
E 875	Perkins Brailler. American Printing House $90.30.
E 878	Desk Slate. House Press, $4.35. Brailling device.
E 881	Freehand Drawing Stylus. House Press. $3.00. For reproduction of visual material for the blind.

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Lucille Kirchhoff, Consultant Supervisor
Deaf and Hard of Hearing Program
Oakland Schools
Becky Alchin, Consultant for Elem. Deaf
Oakland Schools

DEAF AND HARD OF HEARING

Overview (0-25) L. Kirchhoff

1. Background information
2. Medical - Otologist
3. Testing - Audiologist
4. Methodology
5. Curriculum
6. Media
7. Role of U.S. office (Captioned Films)
8. Research
9. Vocational Rehabilitation
10. College (Technical Institutes)

Educational Media for Young Hearing Impaired Children

Use of: Becky Alchin

1. Overhead projector
2. Filmstrip projector
3. Records
4. Tape recorder
5. Audio notebook
6. Audio flashcard
7. Still pictures
8. Books
9. Individual viewers
10. Motion picture

Materials available at the Special Education Media-Curriculum Institute:

1. Classroom Design
2. Opportunities in Audio
3. List of books, articles and records in auditory training
4. The Workshop Classroom - Furnishings in the Learning Module
5. The Role of Media in Individualized Instruction for Teaching the Deaf
6. A Visual Response System for Small Group Instruction
7. Junior High Program - A look to the future

Recommended Materials for School-Media Programs for the Deaf

1. Standards
   For Library-Media Centers in Schools for the Deaf
   (A Handbook for the Development of Library-Media Programs)
   Sponsored by the American Instructors of the Deaf
   U.S. Department of Health, Education and Welfare
   Office of Education
   Captioned Films for the Deaf

2. Project Life
   Instructional Material for Primary Language Training Manual
   Department of Health, Education and Welfare
   Office of Education
   Captioned Films

3. P.E.R.C.
   Professional Education Resource Center Catalog
   Oakland Schools, Pontiac

4. Catalog of Captioned Films for the Deaf
   Prepared by:
   Anita A. Carpenter
   U.S. Department of Health, Education and Welfare
   Office of Education

5. The Captioned Films for the Deaf Program
   James J. Kundert
   U.S. Department of Health, Education and Welfare

6. The Instructional Materials Center in Action
   D.P.I. Lansing
   Bulletin No. 429

7. Planning the Instructional Materials Center for Elementary and Secondary Schools
   Bulletin No. 422
   D.P.I. Lansing

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What's Its Name	Jean Utley	Maico Company
Walt Disney Songs	Columbia	HL 9503
God Bless America & Star Spangled Banner	RCA	447-0407
Music at Christmas Time	Elem. Grades	RCA WE 88
Patriotic Songs	RCA	WE 91
Music for Rhythm Bands	Primary Grades	RCA WE 90
Music of American Indians	RCA	WE 89
Rhythmic Activities Vol. I	Primary	RCA WE 71
" " Vol. II	"	RCA WE 72
" " Vol. III	"	RCA WE 73
" " Vol. IV	Upper	RCA WE 74
" " Vol. V	"	RCA WE 75
Listening Activities Vol. I	Primary	RCA WE 77
" " Vol. II	"	RCA WE 78
" " Vol. III	"	RCA WE 79
The Goldman Band, Patriotic Songs	Decca	28920
Burl Ives Sings "Little White Duck" and Others	Columbia	L 9507
Cowboy Songs for Children	Columbia	HL 9512
Miss Frances Presents Ding Dong School	Golden Records	GPL 49
Sing Along with Mitch Folk Songs	Columbia	CL 1316
Return of the Wayfaring Stranger, Burl Ives	Columbia	CL 1459
Songs of the West	Columbia	CL 657
Goldman Band, Golden March Favorites	Decca	DL 74453
Smile, Album II	Jeri Productions	S 124
Smile, Album III	Jeri Productions	S 125
Songs for Children with Special Needs	Bowman Records	
Let's Square Dance, Album I, "How to do it"		EEB 3000 (Newman Visual Edition)
Three Bears - M. Howden	Howden R #1, Box 159 Dinuba, Calif.	
Fun with Speech, Vol. I & II	Encyclopedia Brittanica	
Bugle Calls of the Army	RCA	447-0158
Sing Along		YPR 722
Another Sing Along	Young Peoples Records 45 RPM	YPR 723

Train to the Zoo	CRA	CRG 45x1001
Train to the Farm	CRG	CRG 45x1011
Train to the Ranch	CRG	CRG 45x1038
Muffin in the City &	YPR	YPR 45x601
Muffin in the Country		YPR 45x603
Rainy Day	YPR	YPR 712
Nothing to Do	CRG	CRG 1012
March of the Little Lead Soldiers	RCA	49 1432 B
Yankee Doodle	YPR	YPR 45x9008
A Child's Introduction to the Orchestra	Golden Records	
Sounds Around Us	Scott Foresman	
Little Indian Drum	YPR	YPR 620
Eensie Beensie Spider	CRG	CRG 1004

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Michigan State University
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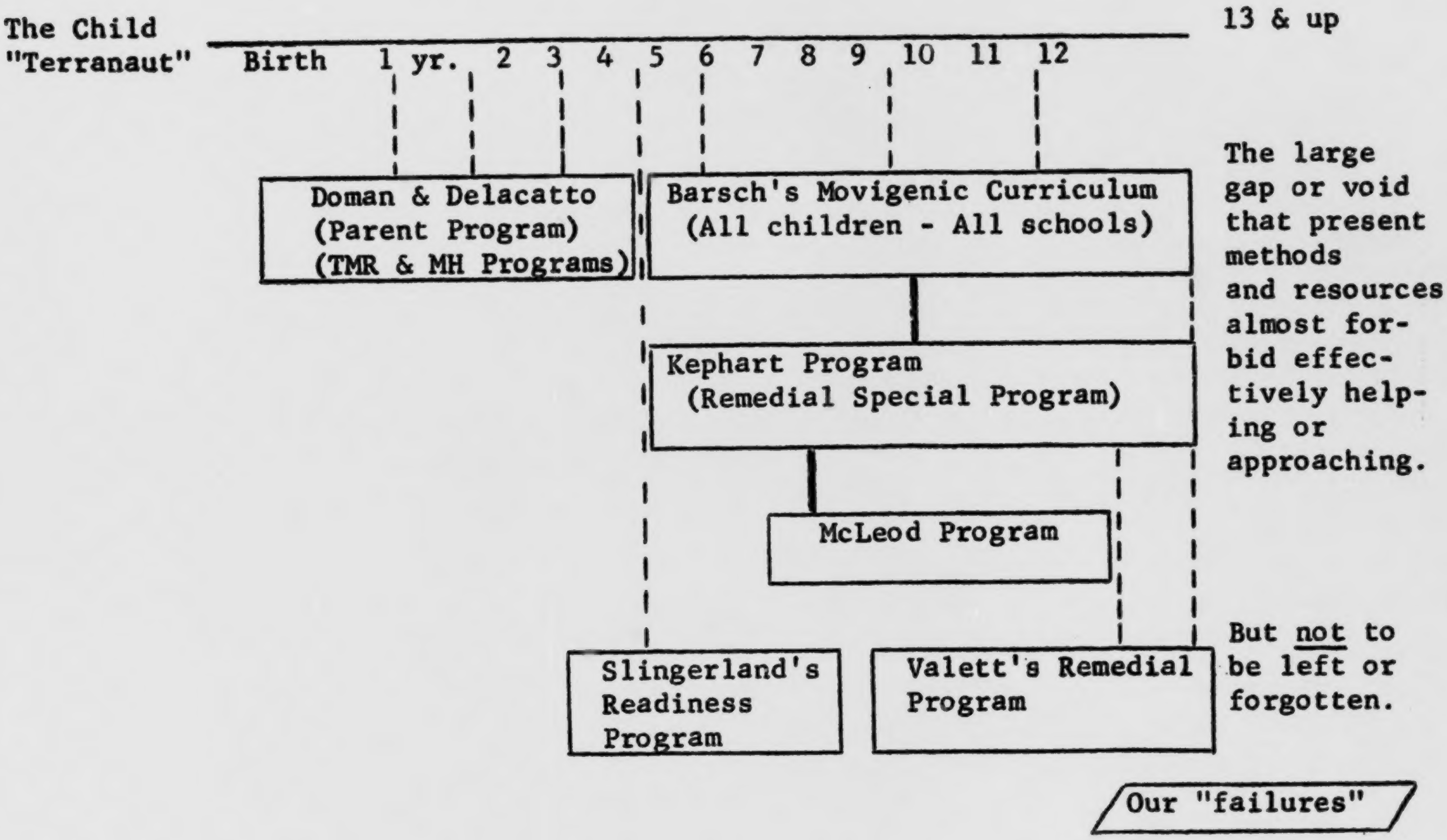

The Child
"Terranaut"
Birth
1 yr.
2
3
4
5
6
7
8
9
10
11
12
13 & up
Doman & Delacatto
(Parent Program)
(TMR & MH Programs)
Barsch's Movigenic Curriculum
(All children - All schools)
The large gap or void that present methods and resources almost forbid effectively helping or approaching.
Kephart Program
(Remedial Special Program)
McLeod Program
But not to be left or forgotten.
Slingerland's Readiness Program
Valett's Remedial Program
Our "failures"

Notes and Excerpts from
"Gadgets, Gimmicks, and Gross Motor"
R. Fisher and D. Kronick

Academic Therapy
Summer, 1969, pp. 307-310

"I wouldn't do anything until I had taken a good long look at the child. Surely that must be the starting place - rather than with the building of equipment or purchase of expensive toys."

"Here is the approach I (Fisher) would like to suggest:"

(1) Watch the child perform an activity. Do the same task yourself until you know each separate movement in sequence.

(2) Determine where the activity pattern breaks down and exactly where confusion sets in.

(3) Help the child at the point where confusion sets in, reducing the amount of help (auditory clues, kinesthetic clues, tactile clues) as soon and as much as possible.

(4) If the problem is inability to perform rather than confusion, then we must ascertain what muscles are not responding or are ineffective, and we must try to improve them.

"I think we should ask ourselves, 'Why are we in the gross-motor field?' In my opinion, we use gross-motor activities for three different purposes."

(1) We teach the slow learner the basic readiness skills vital to school achievement. (Most articles concentrate on this area.)

(2) Remedial gross-motor activities are introduced for the child who "cannot" because the muscles will not respond rather than because he is confused by the activity.

(3) Gross-motor activities for behavioral control are introduced to help the hyperactive youngster - the one with the drive to move and touch - by playing slow-motion games or by forcing him to wait between each activity. The waiting period may start with as little as two seconds, but through careful, patient direction it can be worked up to thirty seconds or even a full minute.

"Before we initiate an activity, we must decide which of the above goals we are attempting to accomplish. With this starting point, a parent or a teacher can design a personalized program for each individual child-rather than trying to fit the child to a piece of equipment."

DEFINITIONS OF MOVEMENT TERMS*

1. Basic Movement: Unstructured movement carried on for its own sake or for increased understanding and awareness of the movement possibilities available to the human body. (This involves emphasis on the actions of body joints and their relation to time, force, and space.)

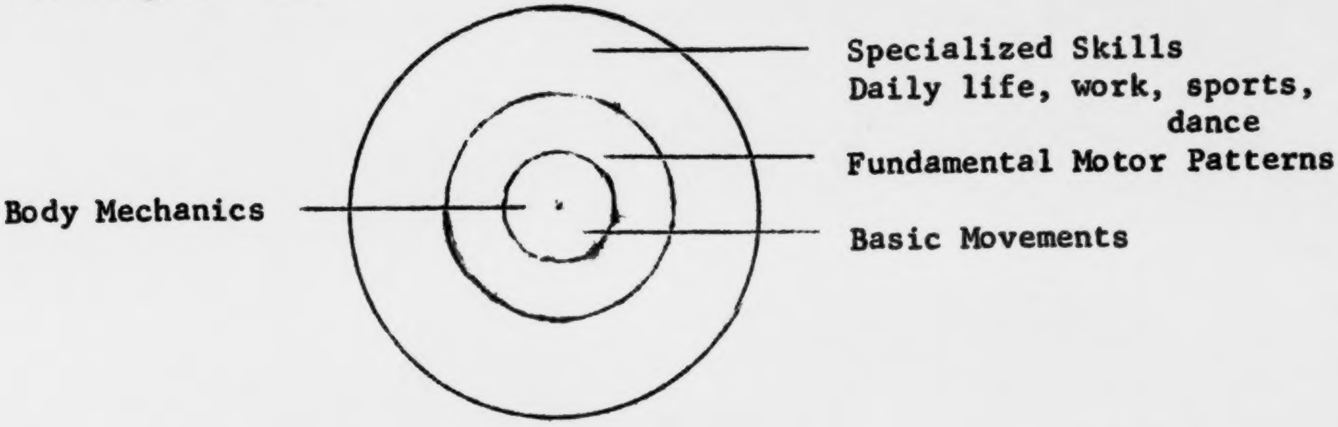
2. Fundamental Motor Patterns: Those patterns that form the foundation for the specialized skills required in daily life, work, sports and dance (standing, walking, running, jumping, pushing, lifting, throwing, striking, etc.).

3. Specialized Skills: Motor patterns which are refined, modified, and/or combined to accomplish specific purposes.

4. Body Mechanics: The application of physical laws to the human body at rest or in motion. The term does not denote any specific set of activities or course content. (same as 1956 definition)

5. Movement Education: Provided experiences through which an individual develops understandings of appreciations for, and skill in, human movement.

The inter-relationships of each of the above definitions are best illustrated by the diagram below:



Body mechanics is applicable to all levels!

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* NAPECW Report, Ruby Anniversary Workshop, National Association for Physical Education of College Women, National Music Camp, Interlochen, Michigan, June 14-19, 1964.

The Ohio State University
BL 81865

Department of Physical Education
Women's Division

HINTS FOR TEACHING BASIC MOVEMENT

1. State problems in such a way so as to bring about numerous responses from every child to most problems.

2. Give subproblems to the children as they move to enhance the movement of the children.

3. Move about the room as you pose the subproblem.

4. Repeat some of the subproblems several times, particularly if the nature of the activity produces a noisy condition.

5. Watch the children and their movement responses to aid you in being stimulated to pose meaningful subproblems for them as they move.

6. Be concerned about the quality of movement exemplified by the responses of the children.

7. Use group and individual praise unsparingly but be sincere.

8. Develop a single idea or movement concept to a fair degree before changing the idea of the movement.

9. Take the time necessary to teach the understanding of and the appreciation for the concepts being taught.

10. The type of demonstration which produces stereotyping movement is to be avoided.

11. Keep moments of inactivity at a minimum by giving complete problems which get the children from one part of the lesson to another.

12. Gain and maintain control of the children by teaching a response to the sing signal to stop and start activity, no matter whether the signal is a sound from an instrument such as a dance drum or the spoken word.

13. Develop an awareness for the necessity of listening to further instruction as they move.

14. Do not be afraid of trying to teach it. Remember, everyone who has taught Basic Movement was a neophyte at it at some time.

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BASIC MOVEMENT

It is desirable as one approaches the topic of Basic Movement to have all people engaged in the discussion to be thinking along the same lines and for each person to be able to differentiate between basic movement and related areas.

Basic Movement as defined and distinguished from other related areas by the National Association for Physical Education of College Women:

Definitions. The following definitions, while not intended to be conclusive, may clarify discussion in the area of movement.

A. Body Mechanics — the application of physical laws to the human body at rest or in motion. The term does not denote any specific set of activities or course content.

B. Basic Movement — movement carried on for its own sake, for increased understanding, or for awareness of the movement possibilities available to the human body.

C. Basic or Fundamental Activities — motor skill patterns that form the foundation for the specialized skills required in daily life, work, sports, dance. (Standing, walking, running, jumping, pushing, lifting, throwing, etc.)

D. Movement Education — study of the art of movement through a tuning of the body in its training to express, to carry out skills, and to be sensitive to what it is doing.[1]

To understand Basic Movement more completely in order to give specific direction to the program, one must be cognizant of the goals of the program. There are four major objectives that should run as continuous threads throughout basic movement lessons. Each is extremely important. Their importance is exemplified in the specific need for each of the objectives to be clearly in focus during the entire lesson.

These four objectives — providing wide movement experiences, developing creative responses, teaching body awareness, and developing a movement vocabularily must be kept in the foreground of the thinking of the teacher of basic movement if these objectives are going to be met in a meaningful, productive way.

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[1] "Purposeful Action" Workshop Report National Association for Physical Education of College Women", Washington: National Association for College Women, 1956, p. 89.

What is the purpose?

a. To offer wide experience in movement, so that children will move with fluency, ease, and versatility.

b. To seek individual CREATIVE responses and to free the children to be creative.

c. To make the participants aware of their own movement possibilities, so that in time they may move with freedom and confidence into any activity they may select.

d. To teach a kinesthetic awareness of a movement vocabulary to serve as a foundation for intricate sport and dance skills.

Basic Movement in the Elementary Curriculum

Basic Movement merits consideration and warrants inclusion in elementary physical education curricula because it is so appropriate for young children for these reasons:

1. Children love movement for movement's sake and all movement is purposive to them.
2. It is desirable to nurture the creative aspect of the child while he is young.
3. Children are less inhibited and are freer to create and react spontaneously.
4. They have fewer learned movement patterns and can respond to the problems in a much more creative way.
5. It provides a challenge to all children who have not had basic movement irrespective of past experiences.
6. It satisfies the child's need for activity.
7. It allows for individual differences and promotes growth through providing successful, satisfying movement experiences for every child.

Content in Basic Movement

As one makes a cursory survey of the Basic Movement material as it has been recorded in the written pages to date or sees an isolated lesson it may be difficult to ascertain the content which should be included in the experiences provided under the auspices of Basic Movement. However, if one keeps the objectives clearly in mind, the content becomes real and the direction becomes specific.

The content is closely related to the objectives. Take the objective of teaching a functional kinesthetic awareness of a movement vocabulary. The content built around this goal is directed toward teaching the child an awareness of different terms in such a way so he can demonstrate an understanding of the term by exemplifying his awareness through movement. For example, the child should have, as part of his movement vocabulary, the terms "twist" and "stretch". These terms become functional and an integral part of his movement vocabulary when that child can demonstrate his understanding of these terms by responding positively to problems calling for the stretch and twist.

Much of the content is structured around the four elements common to all movement. An awareness of these elements and the variations possible within each is an essential part of the content of Basic Movement lessons.

Basic Elements of Movement

1. TIME:

All movement is characterized by time. It may be fast - slow - or in between; the time it takes to execute a movement helps to determine its quality. Most individuals have developed a time response which is characteristic of them - some move rapidly - some slowly. Children should have experience in utilizing both extremes of time and understanding and sending its effect on the quality of movement. Effective movement is often directly associated with the speed with which the movement is done.

2. FORCE:

All movements are performed lightly or strongly or in variations between these two extremes. Here, too, each individual tends to have his own quality of force and exhibits it constantly in his many movements. Practice should be on the extremes to understand the effect of force on the quality of movement. The effective use of force is an important factor in efficient movement. One also must realize and teach the quality of force exemplified in muscle contraction so necessary in the successful execution of many skills.

3. SPACE:

All movements occur in space. To move well, individuals must be aware of space and use it freely. In teaching children to use space intelligently and completely, they must be taught:

a. Space in relation to the whole gymnasium or playground or room in which they are working. It is essential that they are aware of other children in this working area and manage themselves in relation to others. There is a specific need to learn to adjust their movements to those of other individuals and objects moving about the space.

b. Space in relation to themselves. This is concerned with all the space around them — (forward, side, back - high, medium, low) — and all the space between these points. When we consider moving in the space around us and in the room, we must consider:

(1) Directions, i.e., forward - sideways - backward - in circles - in curves - obliquely, etc.

(2) Levels: High-medium-low-and the levels between.

(3) Full and/or limited use of space as in stretch, curl, twist, bend and big or small movements.

4. FLOW:

The flow of movement can be "bound" or "free". Any movement which can be stopped or held without difficulty at any stage in the action is termed "bound". Any movement which is difficult to stop suddenly is termed "free". Because of the need to control the body in gymnastics "bound" flow is more often used. The nearest approach to "free" flow is in the continuity of action in movement sequences.[1]

POINTS TO EMPHASIZE IN BASIC MOVEMENT

1. Initial Warm-up —— Every class starts with a warm-up which involves moving freely in the room in response to a challenge from the teacher. This challenge allows for some choice on the part of the individual to initiate his own movement. This activity continues until a physiological response is obtained.

2. Flow in Lessons —— There should be an attempt to keep the lesson flowing from one activity to another without constant rest. Children should not sit down between each and every activity. The technique used to help insure a flow in the lesson is giving complete transitions.

3. Transitions —— The set of instructions given by the teacher which takes the children from one portion of the lesson to another. If the transition is given in its entirety the lesson will flow from one activity to another with a minimum amount of confusion or wasted time and the

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[1] Educational Gymnastics, London City Council, The County Hall, London, S.S.I., 1964, p. 3.

children are then able to spend the majority of class time in purposeful activity.

A transition, generally, should contain information to answer the following questions: "When?", "Where?", "What?" and occasionally "How?"

4. Problem-Solving —— One utilizes the problem-solving approach in the teaching of basic movement. Great care should be taken in phrasing the problems so each problem will bring about a multiple of responses from every child. Emphasis should be placed on endeavoring to avoid stereotyping the movement of the children. The problems should be phased to challenge the creativity of the children.

5. Subproblems —— Subproblems are given to the children as they respond to the original problem to enhance their movement, to give depth of movement experiences around a central problem, to foster continuous movement, to encourage numerous responses, and to bring out a higher quality in their movement responses.

6. Starting Positions —— Should be varied to get a wide variety of movement and to illustrate how the different bases of support can restrict or increase the range of moevement. Let children find these positions and utilize them.

7. Small Hand Apparatus —— (Such as ropes, balls, bean bags, hoops, etc.) All of this apparatus is used to improve body movements and widen movement experiences, not as an end in learning specific skills. Undoubtedly, better ball handling and other skills will result through use — though this goal is not specifically sought. Small hand apparatus often can be used in the warm-up part of the lesson.

8. Experimentation —— If creative work is to develop, each child must be given the opportunity to develop at his own rate and in accordance with his own ability. Free expression of movement must be allowed each child within the limitations imposed by the piece of apparatus. Children must have the opportunity to explore, to try out many ways of moving, of using equipment, before the teacher imposes too many limitations. If limitations are imposed, there should be a chance for individual response within the problem.

9. Repetition —— There is security in repetition of activity, especially for small children. Children enjoy playing familiar games and they should have the opportunity for choice of activity which will bring back favorite activities.

10. Partner Work —— Working with a partner is a good transitional step in the march toward group or team cooperation. Many of our activities lend themselves to partner organization. Working with a partner presents a new challenge and hence serves as a step in progression.

11. Flow in Group Work —— When group work is introduced, an attempt should be made to keep everyone moving — no line-ups waiting for turns.

A SUGGESTED LESSON SEQUENCE

Part I of the lesson: Should be vigorous to bring about an immediate physiological change. This can usually be accomplished more readily with locomotor movements.

Part II: Usually a continuance of the beginning activity with the introduction of equipment to be used while moving about the space. This gives a wider range of movement experiences.

Part III: Concentrates on non-locomotor movements to bring about greater awareness of the movements which the body can perform while remaining in a limited area.

Part IV: Opportunities provided herein should be developed around small group participation. This provides unique experiences inherent in working in small groups.

Part V: Activities are arranged here so all children are participating in solving problems while moving in a predescribed floor pattern. Facilities available in limited quantities can be utilized effectively in this phase of the lesson.

Part VI: Quiet Activities - usually stressing relaxation with emphasis on the non-locomotor movements.

PROGRESSION IN BASIC MOVEMENT

1. Experimentation - find ways of moving or using equipment and apparatus.
2. Impose limitations but leave area for individual responses and creativeness.
3. Move into couple work.
4. Put movements together to form patterns.
5. Advanced - move into larger patterns and into group work.

ADAPTATIONS AND AIDS FOR MOTOR IMPAIRMENTS IN LEARNING

Motor impairments are found involving either gross or fine movements, or both. One will find these evidenced in children's behavior either as quite evident (Orthopedic Impairment - Cerebral Palsy) or subtle (unable to skip, hop, or perhaps write evenly). The classroom teacher will many times see behavioral clues which may indicate motor problems. A list of some of the behavioral clues, which may be used as a screening device, would include:

(1) Watching the child walking, climbing, and descending stairs. Does he do it evenly - alternating feet?

(2) Have the child skip, hop, balance on alternate feet (with eyes closed also).

(3) Have the child throw a ball (large and small) - one-handed and two-handed - catch with one hand and two hands.

Gross Motor

(4) Can the child ride a tricycle - bicycle - wagon scooter?

(5) Have the child carry parcels or boxes to a predetermined location (small and large). Can he carry more than one?

(6) Have the child imitate body movements such as Simon Says game, looby-loo, Hokey Pokey.

(7) Does he, and how does he, participate in group activities? Last one, can't do, always running around?

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(1) Have the child reproduce the basic shapes, designs, and/or words after a brief exposure (5 to 10 seconds). Do this auditorily also.

Fine Motor

(2) Have the child trace designs and words (plastic sheet or onion skin).

(3) Have the child copy designs and words (board and book).

(4) Can he visually track objects and words?

When a teacher finds a child exhibited gross motor impairments, five questions might be asked:

(1) To what degree does the individual deviate from the norm?

(2) What are the fundamental motor patterns involved? (Basic components in: e.g., skipping)

(3) How will this interfere with learning and skill development?

(4) What can I institute to aid the child?

(5) Who should I consult with?

The next step is to ask what areas are involved and can measures be taken within the classroom to help the child? If the child appears clumsy or awkward in walking, but due to subtle causes, then perhaps the teacher should organize a perceptual-motor program to assist the child. One might refer to Barsh, Getman, Kephart, or McLeod's programs for suggestions in this area.

"FINE MOTOR SKILLS AND LEARNING"

Stages of Development	Materials
Reach - Grasp - Release	Balls - Clutch Balls Jacks - Marbles Balloons - Mobiles - Balls
Thumb and Finger Grasp	Long, thin, noisy, bright toys (Rattles, bean bags) (Drumsticks - Bells/Handles) (Flexible toys - Baton - Xylophone) (Pegboards - Pick-Up Sticks)
Finger Use	Toy Piano - Telephone Buttons and Bows Dolls Leggo Blocks Parquetry Blocks Take-a-part Toys - Puzzles Cash Register Etch-a-Sketch Wind Up Toys Cootie - Mr. Potato Head Bead Designs Typewriter
Using the Arms Together	Pick-up - Move - Stack Toys Rocking Horse - Swing Tricycle - Simon Says Rolling Pin - Pot Covers (Cymbols) Wheelbarrow - Iron and Ironing Board
One Hand Holding One Hand Manipulating	Balloon Pump - Telephone Slide Trombone Broom (Cleaning Set) Stringing Beads Hook Together Trains Leggo Blocks - Lincoln Logs Gardening Set
Two Hands Performing Separate Functions	Scissors - Paste - Paper Block Designs - Parquetry Two-Hand Control Toys Carrom - Skillball - Fooseball
Arm Placement	Simon Says Punch Bag Finger Paints

Stages of Development	Materials
	Tenpins Boxing Gloves
Objects in Large Area	Magnet Board and Objects (feltboard also) Sand Pail and Shovel Blackboard
Small Objects in Small Area	Stack Toys (Round - Square) Pound-a-Peg Balancing Toys (Clowns) Puzzles - Construction Sets
Exact Placement of Tiny Objects	Pegboards Parquetry Designs Lacing Shoe Number Scales Woodburning Set Paint-by-Number Set Record Player

SUGGESTED TOYS AND GAMES FOR THE CHILD WITH PERCEPTUAL PROBLEMS

The following toys and games have been evaluated to meet the needs of a child with perceptual handicaps. They also can, and should, be utilized in the early developmental experiences of the normal child. A child learns about his environment by the interaction with this environment through sensori-motor experiences.

Howard M. Coleman, O.D., M. ED.
Visual-Perception Consultant

SUGGESTED TOYS AND GAMES
FOR THE CHILD WITH PERCEPTUAL PROBLEMS

Name	Description
Tickle Bee	Maze toy - simple
Skill it - frying pan	Flat plastic maze - send marbles through - simple
Bash	Using plastic hammer - knock pieces from under a plastic body
Playskool Wood Blocks No. 822	Natural wood blocks in 1/2 circle-rectangular, oblong shapes, etc. 3 to 6 inches
Peg-a-rounds	Round shapes - fit together - nested graduated sizes - plastic
Learning Tower	Octangular shapes fit together - nested graduated sizes - plastic - 12 pieces
Slinky	The "walking spring"
Slate and Chalk Set	Slate and chalks
Erasable crayon and coloring book sets	Cardboard coloring books and crayons - wipe off when completed
Magic Slates	Pull up plastic to erase
Finger Paints	Primary colors and paper - washable type paints
Silly Putty	Chemical compound that molds to various shapes
Play Doh	Spongy substances that mold - does not stain - edible
Plasticine Clay	Molds - does not harden
Play with Felts	Felt pieces to build up designs on a flannel board - 6 colors
Tracing Books	simple
Follow the Dot Books	simple - Must know numbers
Feeley	Find object on card in closed box by feel only
Plastic Horseshoes	Usual game - plastic
Ring Toss	Usual game - wood bases - rope rings (tend to separate)
Clown Bean Bag Game	3 cloth bean bags and masonite board 16 x 20
Kettle in Kegs	Barrel shapes - fit together - nested graduated sizes - plastic - 14 pieces
Skribble Stix	5 basic shapes - plastic pieces - snap together to form shapes and letters - 385 pieces (requires fine finger control)

Name	Description
Lego - Beginner Set	Plastic bricks which snap together - Beginner set is 4" bricks - basic set is 1" bricks
Sifo - Snap-N-Play	Snap block pieces and wheels assembles into toys - 20 pieces
Bolt It	Assorted wood pieces and large metal nuts and bolts to assemble into toys
Nuts 'N Bolts	20 polyethylene nuts and bolts to be screwed together by size and color
Pixie Puzzles	Round tube-body beads - dress or collar - bases - heads - chenille stems - requires fine finger control
Magnetic Paper Dolls	Doll (press board) clothing - small magnets
Magnetic Calendar Board Milton Bradley	Board - cork area - markers - clock - movable hands - magnetic slate with calendar markings
Sticker Fun Books	Punch out - stick in outline
Stencil Fun Books	Punch out - trace in or around - also paste on outlines or blank paper to make pictures
Twister - Milton Bradley	Body parts and balance on a plastic layout using whole body
Monkey's Uncle	Stunts performed according to stimulus
Candyland	Following a colored path - draw a card - move playing piece to corresponding color or object on game board
Animal Twister	Make an animal using body parts as required - on hopscotch-type layout
Winnie the Pooh Game	Play is by color with discs drawn from grab bag
Yo-Yo	Wooden - bright colored

Advanced (ages 7 - 9)

Boob Tube	Marbles to bottom of tube - send to top in maze - moderately difficult
Peak	Marble maze - moderately difficult
Lolli Pop	Flip marbles down plastic stick - moderately difficult
Barrel of Monkeys	Lift out string of monkeys from box without breaking string (not easy)
Avalanche - Parker	For older children - marbles in tubes and left and right gates

Name	Description
Krokay	Plastic croquet set
Skee Ball	Plastic skee ball
Bowling	Plastic bowling set
Tetherball Set	Ball on string
Try It	Marble maze puzzle (difficult)
Paddle Ball	Rubber ball on elastic attached to wooden paddle
Jump Rope	Without bells - can be old piece of clothesline
Spirograph	Plastic designs involving use of colored pens

PUZZLES

Types

Magnetic	Made of plastic - easily broken. If not likely to be dropped on a hard surface, they eliminate the problem of slipping parts.
Plastic	Pieces usually fit poorly - lack solidity.
Cardboard	Pieces are thin - difficult to grasp - often fit poorly.
Wooden	Easily grasped - more expensive.
Knobbed	Easily grasped - but destroys kinesthetic learning. Pieces are useful for tracery.

Difficulty in order of sequence

1. All cutouts are whole shapes representing the object.
   Example; train - car - boat - plane - framed
2. All pieces are geometric parts of a whole.
   Example: 2 halves of an apple - frames
3. All pieces are "obvious" parts of a known object.
   Example: 2 arms - 2 legs - 1 head - 1 hat - 2 feet - 2 hands - frames
4. All pieces are widely different but not so obviously a part of the whole. Framed

RELATED READINGS FOR
MOTOR SKILL AREAS AND PROGRAMS

Barsch, Ray, Achieving Perceptual Motor Efficiency (Seattle, Wash., Special Child Publications, 1968).

Barsch, Ray, The Movigenic Curriculum, Bulletin #14 - State Department, Madison, Wisconsin.

Denver Developmental Scale

Dorward, Barbara, Teaching Aids and Toys for Handicapped Children (Council for Exceptional Children, Washington, D. C., 1960).

Fisher, Ralph and Kronick, Doreen, "Gadgets, Gimmicks, and Gross Motor" (Academic Therapy, pp. 307-310, Summer 1969, San Rafael, Calif.)

Frantzen, June, Toys. . .The Tools of Children (National Society for Crippled Children and Adults, 1957).

Getman, G. N., How To Develop Your Child's Intelligence (G. N. Getman, 1962, Luvern, Minn.)

Ilg and Ames, School Readings (Harper and Row, 1967).

Kephart, N. C., Learning Disability: An Educational Adventure (Interstate Printers and Publishers, Danville, Ill., 1968).

Kephart, N. C., Editor (The Slow Learner Series)

Charles E. Merrill Pub.
1300 Alum Creek Dr.
Columbus, Ohio 43216

- Kephart, N. C., The Slow Learner in the Classroom (1960, 304 pages).
- Roach, Eugene G., and Kephart, N. C., The Purdue Perceptual-Motor Survey (1966, 100 pages).
- Ismail, A. H., and Gruber, Joseph J., Motor Aptitude and Intellectual Performance (1967, 224 pages).
- Benyon, Shelia Doran, Intensive Programming for Slow Learners (1968, 128 pages).
- Ebersole, Marylou, and Kephart, N. C., Steps to Achievement for the Slow Learner (1968, 196 pages).

Chaney, Clara M. and Kephart, N. C., Motoric Aids to Perceptual Training (1968, 144 pages).

Simpson, Dorothy M., Learning to Learn (1968, 96 pages).

McLeod, Pierce, Readiness for Learning (J. P. Lippincott, 1967).

Radler, D. H. with N. C. Kephart, Success Through Play (Harper and Row, 1960).

Rowen, Betty, Learning Through Movement (Bureau of Publications, Teachers College, Columbia University, 1963).

Valett, Robert, The Remediation of Learning Disabilities (Fearon Publishers, Palo Alto, Calif., 1968).

Valett, Robert, Programming Learning Disabilities (Fearon Publishers, Palo Alto, Calif., 1969).

MOVEMENT ACTIVITIES IN SPECIAL EDUCATION
(Gross Motor Skills)

Basic Movement: Unstructured movement carried on for its own sake or for increased understanding and awareness of the movement possibilities available to the human body. (This involves emphasis on the actions of body joints and their relation to time, force and space.)

Fundamental Motor Patterns: Those patterns that form the foundation for the specialized skills required in daily life, work, sports and dance (standing, walking, running, jumping, pushing, lifting, throwing, etc.)

Specialized Skills: Motor patterns which are refined, modified and/or combined to accomplish specific purposes.

The following are some developmental norms as taken from the Denver Developmental Scale. These can serve as guidelines in the motoric development of children.

Gross Motor

Raise head: 1 - 2½ months
Roll over: 2½ - 3½ months
Sit without support: 5 - 6 months
Stands holding on: 5 - 8 months
Walk holding on: 7-10 months
Stand alone well: 10 - 13 months
Walk alone well: 11 - 13 months
Walk up steps: 14-20 months
Kick ball forward: 14½ - 22 months
Throw ball overhand: 14½ - 22½ months
Jump in place: 20 months - 3 years
Ride trike: 20 months - 2½ years
Balance 1 foot: 22 months - 5 years
Hops 1 foot: 3 - 4½ years

These guidelines can also serve as reminders of the need to scale a task to the individual child's ability level.

Example: skill = skipping

1. Child must balance on one foot before he can hop.
2. Child must step-hop on one foot before he can skip.
3. Child must be able to integrate an activity sequence.

Along with normal gross motor development is the Central Nervous System reflex development. From birth onwards, each intact nervous system goes through a series of neurological reflexes from primitive to refined. These reflexes are all normal at certain stages. It is only when they persist beyond a certain age that they become indicative of CNS deficit and are termed "abnormal". Some of the persistant reflexes that characteristically interfere with normal development are:

Tonic neck reflex
Crossed extension reflex
Moro or startle response

They may interfere also with the later developing normal reflexes such as the labyrinthine and righting reflexes.

Karl and Berta Bobath have instituted a method of working with severely neurologically impaired children which teaches inhibition of abnormal reflexes and facilitation of normal reflexes with corresponding control of movement. One of the other remedial methods for these children is that of Doman-Delacato (Temple Fay) which seeks to imprint normal developmental motoric patterns on the handicapped child. Their method of facilitation is different, but it too emphasizes movement.

All handicapped or deprived children, because of lack of facilitation in one or more developmental areas, do not usually develop motorically in a "normal" manner. We need to be aware of what the child should be able to do - based on mental age, chronological age and disability - and teach the skill, after having broken it down into component parts.

HOW DOES THE TEACHER KNOW WHAT'S WRONG AND WHAT TO DO?

1. Task analysis
    a. Break skill down - do it yourself very slowly. Be aware of any movement you make.
    b. Study how the child does it.
        1) Is he awkward, clumsy?
        2) Does he miss key points?
        3) Is he unable to start because the activity is too complex?

2. Structure remedial learning situation
    a. Teach one step at a time.
    b. Do with child - next to him, not opposite him.
    c. Make task as enjoyable as possible.

3. For a group testing situation, may want to use:
    a. Purdue Perceptual Motor Survey
    b. Vineland adaptation of Lincoln-Osertsky Motor Development Test

IS MOVEMENT REALLY THAT IMPORTANT?

1. The child in early years learns through movement. To deny him movement is to deny him learning about self, space, body image, etc.

2. The child needs to achieve. Gross motor activities are among the lowest on the developmental scale and hence in a way the most remedial with patience and proper technique.

HOW AND WHERE DOES THE TEACHER FIND THINGS TO DO AND THE TIME TO DO IT?

1. There is no real need to follow one particular program. Every program certainly has good ideas. The important thing is to start thinking in terms of movement and to be creative.

2. There is no stereotype or rigid schedule that could or should be followed. This leads to boredom for class and teacher.

3. For every one of the activities listed below, think in different directions and of different basic movements. For example, when jumping is listed, it means:

   a. jumping: into, off, over, onto, behind, in front of, around
   b. jumping: high, far, twice, 10 times
   c. jumping: sideways, frontwards, backwards, eyes closed
   d. jumping: continuously or starting and stopping

We could say "jumping into a square,, over a rope, onto a box", etc., but these are things a concerned teacher can manipulate. The important point is that the child learns space. (Incidentally, it is a beautiful way to teach prepositions and language.)

4. Basic movements and a few suggestions:

   a. Rolling
   b. Crawling, hands and knees and on stomach (like wriggling under low board)
   c. Walking - crab walk, elephant walk, balance beam, etc.
   d. Running
   e. Skipping
   f. Jumping
   g. Hopping - hopscotch
   h. Throwing
   i. Climbing - rope, ladder, trees, poles
   j. Swinging - rope, swings, overhead bar
   k. Tumbling - somersaults (Be very careful about trampolines)

5. Rhythm variation can be worked in with any of the movement skills or sequences. Again, the following are only suggestions from which one could perhaps START:

a. March, run, hop, skip to beat - metronome, bongo drum, record player, tape recorder.

b. Slow rhythmic activities lying on mat or floor for rest from heavier exercise - to music.

c. Group activities in a circle to music - Looby Lou, Mexican Hat Dance, Hokey Pokey, simple folk dances, etc.

d. Creative movement activities - pin a snowflake on child, have him spin, whirl, etc. (like a snowflake) to appropriate music. Enlarge upon this with any central theme or group of themes - barnyard animals, freeway traffic, etc.

Nancy Carlson

Experiences in Movement

One of the most delightful and creative things to do with a class of children is to manufacture an obstacle course out of available materials. This can be done in the classroom, on the playground, or in the gymnasium. (Perhaps the physical education teacher - if there is one - could help in planning, etc.)

Variations on the suggested ways of completing any obstacle course are:

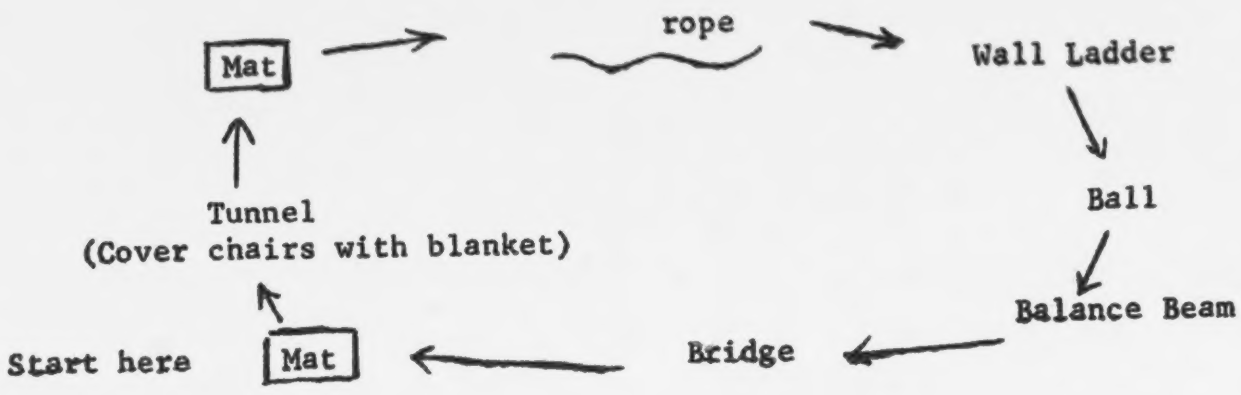
1. Have child talk through what he is going to do first. (Verbalize activity and motor planning.)

2. Have rope connecting all areas. Have child follow rope guidelines while blindfolded (tactile-kinesthetic awareness).

3. Vary types of movement between obstacles, i.e., running, walking, backwards hopping, skipping, etc.

4. With large group, can start each child at a different place in obstacle course.

Gym Obstacle Course



Suggestions for use:

Roll length of Mat #1
Crawl through tunnel on stomach
Sommersault length of Mat #2
Walk rope, making sure both feet stay on rope
Climb wall ladder
Push ball with nose from ladder to beam (or carry)
Walk beam sideways
Crab walk under beam

Classroom Obstacle Course

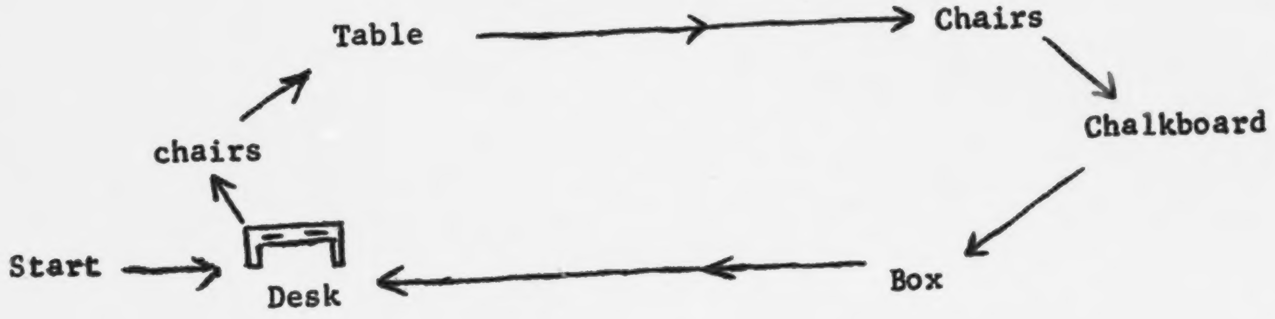


Table
Chairs
chairs
Chalkboard
Start
Desk
Box

Suggestions for use:

Crawl under desk backwards
Crawl across chairs
Roll length of table (under, unless you are brave)
Over and under sequence of chairs (over one, under next)
Draw straight line from left to right on chalkboard
Climb on chair or box and jump off.

Some classrooms may have additional equipment. This is only the briefest of outlines.

David Fuller
Beekman Center
Lansing Public Schools

Summary of presentation:

PHYSICAL EDUCATION FOR THE HANDICAPPED

Objectives

A physical education program for the handicapped should serve two basic objectives:

(1) Developing the body to its maximum (fitness).
(2) Developing motor (sports) skills for participation in active recreational games.

Program Content — Classifying Activities

A. Physical Fitness — activities to promote development in the fitness elements of: agility; balance; coordination; endurance; flexibility; speed; strength.

B. Skill Development:

1. Basic motor skills — an outline* (Fuller) was reviewed, showing the normal sequence of motor development, and how this outline may be used to plan a complete program of physical education.

2. Games — low organization and athletic lead-up.

3. Sports — individual, dual, team. Should emphasize the "life-time" sports — for leisure and post-school participation.

C. Units:

Aquatics
Gymnastics
Rhythms

D. Corrective — activities prescribed for individual weaknesses.

E. Outdoor Education — camping, boating, fishing, etc.

Planning Activities

In addition to a routine of fitness activities, the outline of basic motor skills should be used to ensure a more complete program of skill development. In addition to locomotor skills, emphasis should be on the skills basic to all sports: throwing, catching, striking, and kicking. Activities should be taught in a definite sequence — based upon individual ability and progress. Activities should be "self-motivating" — interesting and challenging, while allowing some measure of successful completion (teacher should be able to adjust an activity to a wide range of abilities). Safety factors must be considered in activity planning (movement patterns, equipment, environmental dangers, etc.).

Principles — Teaching Basic Motor Skills

A. First stress completion of movement (correction in form should come after some experience in the total movement).

B. Demonstrate — present the child with a visual (or kinesthetic, with blind) model of performance (instructor, doll with movable joints, etc.).

C. Assist where necessary. (Gradually reduce physical assistance, until child is capable of self-movement).

D. Sequencing (points to consider in planning activity levels — easier to more difficult):

1.	Throwing.	Smaller, light object-to-larger, heavier.
2.	Kicking.	Size — large, light-to-smaller object. Speed — stationary-to-moving. Coordination — force-to-control.
3.	Catching.	Lighter, larger-to-smaller, heavier object. Slow moving-to-faster moving object. Short distance-to-greater distance. Child — stationary-to-moving. Use of two hands-to-one hand.
4.	Striking.	Larger-to-smaller object. Use hand-to-short handle-to-long handle instrument. Use one hand-to-two hands. Object — Stationary-to-moving, supported-to-moving, free (increase speed and distance).

Evaluation

An individual record of motor development and performance should be initiated early in the child's schooling (patterns in dominance, performance in basic motor skills, etc.). The evaluation form should provide a longitudinal record — presenting regularly measured data over a period of several years. All children should perform tests at whatever level possible, so that on subsequent measures, an individual can "compete" with his own past performance. (e.g. A blind or orthopedic child can be tested on the shuttle run — to see if there is individual progress from one test period to the next.) The performance record should include skill and fitness test items. The evaluation form* (Fuller) demonstrated can be used to record a year's progress (with four test periods), and gives a picture of individual test performance while also showing how the child compares with his age group (profile record).

Use of 8mm films to record physical performance is an effective technique for demonstrating individual (and group) progress.

Gym Demonstration

(1) Film — "fitness circuit". Film of TMR children taken in Beekman gym classes, which shows how an adapted version of "circuit training" may be used to develop fitness in elementary and secondary handicapped children.

(2) Demonstration of some basic pieces of equipment — with emphasis on the many different ways (various activities) each could be used.

(3) Demonstration of a sequential progression in teaching the skill of batting to a motorically handicapped child.

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*Outline of basic motor skills
*Evaluation form

Either, or both of these are available upon request from:

David Fuller
Beekman Training Center
2901 Wabash Road
Lansing, Michigan 48910

PHYSICAL EDUCATION FOR THE HANDICAPPED

Selected Resources

BOOKS (Special Physical Education)

HANDICAPPED — GENERAL

Daniels, A. S. and Davies, E. A. Adapted Physical Education: Principles and Practice of Physical Education for Exceptional Students New York: Harper and Row, 1965.

Fait, Hollis Special Physical Education: Adapted, Corrective, Developmental (2nd ed.) Philadelphia: W. B. Saunders Co., 1966.

Kelly, Ellen D. Adapted and Corrective Physical Education (4th ed.) New York: Ronald Press Co., 1965.

Rathbone, J. and Hunt, V. Corrective Physical Education Philadelphia: W. B. Saunders, 1965.

Wheeler, Ruth and Hooley, A. Physical Education for the Handicapped Philadelphia: Lea & Febiger, 1968.

MENTALLY RETARDED

(The following titles are available from:
NEA Publications - Sales
1201 Sixteenth Street N.W.
Washington, D. C. 20036)

AAHPER #245-08078: A Practical Guide for Teaching the Mentally Retarded To Swim $2.00.

AAHPER #245-07952: Physical Activities for the Mentally Retarded (Ideas for Instruction) $2.00.

AAHPER #246-07972: Guide for Programs in Physical Education and Recreation for the Mentally Retarded $$1.25.

AAHPER #245-07942: Programming for the Mentally Retarded in Physical Education and Recreation $3.00.

AAHPER #246-07726: Recreation and Physical Activity for the Mentally Retarded $2.00.

VISUALLY HANDICAPPED

Belenky, Robert A Swimming Program for Blind Children 1955.

Buell, Charles Active Games for the Blind Ann Arbor: Edwards Brothers, Inc. 1953.

Buell, Charles Physical Education for Blind Children Springfield, Ill. Charles C. Thomas 1966.

Case, Maurice Recreation for Blind Adults Springfield, Ill.: Charles C. Thomas 1966.

Seamons, Gloria Swimming for the Blind Brigham Young University 1966.

PHYSICALLY HANDICAPPED, NEUROLOGICALLY HANDICAPPED

Cratty, Bryant Developmental Sequences of Perceptual-Motor Tasks Freeport, N. Y.: Educational Activities, Inc. 1967.

Cratty, Bryant Perceptual-Motor Behavior and Educational Processes Springfield, Ill.: Charles C. Thomas 1969.

Kephart, Newell Aids to Motoric and Perceptual Training Madison, Wisconsin: Wisconsin Bureau for Handicapped Children 1964.

Pomeroy, Janet Recreation for the Physically Handicapped New York: MacMillan Co. 1964.

PERIODICAL LITERATURE

Challenge — A newsletter dealing with all aspects of physical education and recreation for the mentally retarded. Subscription orders for one year (five issues) are $3.00. An order may be placed with:

Challenge, AAHPER
1201 16th Street N.W.
Washington, D. C. 20036

JOHPER (Journal of Health, Physical Education and Recreation) — Since the November, 1968 issue, JOHPER has included a section on physical education for the handicapped.

A bibliography of readings in adapted physical education may be found in the May, 1969 issue of JOHPER.

An April, 1966 reprint — "Activity Programs for the Mentally Retarded" — is available from:

AAHPER
1201 16th Street N.W.
Washington, D. C. 20036

AUDIOVISUAL

Audiovisual Guide: Listing of films, slide programs, and records. Available from:

Project on Recreation and Fitness for the Mentally Retarded
1201 16th Street N.W.
Washington, D. C. 20036

"And So They Move" (19 min. - black and white). While this film deals with the application of movement to the physically handicapped, the rationale, activities, and methodology are appropriate for children of all functional levels. Much of the program is built around improvised equipment, innovative obstacle courses, and creative use of playground equipment. From:

Audio-Visual Center
Michigan State University
East Lansing, Michigan

"P.E. — Lever to Learning" (20 min. - color). Shows EMR boys and girls from a public school special education program taking part in a program emphasizing development of motor skills and physical fitness. It also shows students in the classroom engaged in various academic activities which have been built around physical education experiences. Preview available from:

Stuart Finley, Inc.
3428 Mansfield Road
Falls Church, Virginia 22041

"Physical Education for Blind Children" (20 min. - color). Demonstrates how blind children participate in active games and sports. From:

Charles Buell
2722 Derby Street
Berkeley, California 94705

"Show Me" (28 min. - black and white). An instructional film promoting the teaching of movement and rhythms to the trainable mentally retarded. Available from:

Universal Education & Visual Arts
221 Park Avenue South
New York, New York 10003

Nora Martin, Assistant Professor
of Special Education
Eastern Michigan University

PRESCRIPTIVE TECHNIQUES IN TEACHING EXCEPTIONAL CHILDREN

I. Prescriptive Teaching is a method of utilizing diagnostic information for the modification of education programs for children with problems.

A. Prescriptive Teaching is accomplished by determining the educational relevance of the child's disability, and devising teaching procedures to yield desirable changes in the child's academic progress, emotional condition and social adjustment.

B. Prescriptive Teaching is implemented through the modification of the variable factors in the school such as the teachers' attitudes, approach, specific educational objectives for the child, special services, placement personnel, curriculum, and INSTRUCTIONAL MEDIA, materials and equipment.

II. Prescriptive Teaching Circuit has four phases:

A. Phase I - referral	Child is referred by the teacher to a diagnostic team. They evaluate the child and work up a case study.
B. Phase 2 - reporting	The diagnostic team reports back to the teacher, informing the teachers of possible modifications needed to help the youngster.
C. Phase 3 - implementation	The carrying out of the modification in the youngster's methods and educational media.
D. Phase 4 - follow-up	After implementation, the teacher must observe to see if there are some changes in behavior. If the results are negative, it is necessary to look again at the diagnoses and to revise the present prescription (teaching devices or techniques).

III. In Prescriptive Teaching (before actually writing a prescription), you must determine where the breakdown in learning is — it could be in the "input" which is the actual taking in of stimuli, through the sensory modalities. The breakdown could be in the "integration" which is the actual realization or meaning of stimuli. Or a child could have a problem in "output" which is the verbal or motor response to stimuli.

IV. Observe signs which give some clue to the kind of learner a child may be (referring to the strongest sensory area).

A. Auditory Learners usually have some problems in the visual-motor channel disability.

1. They seem to reverse a great deal.
2. They inverse numbers many times when writing.
3. They sometimes have mixed laterality.
4. They are awkward motorically, poor motor coordination.
5. They can usually give the correct answer to a test, when it is read to them.
6. Very poor handwriting, usually.

B. In writing a prescription for auditory learners, you should keep their strong points in mind.

1. Utilize stimulus-reduction to reduce hyperactivity.
2. Use color cues to reduce perseveration.
3. Tape record lessons whenever possible.
4. Present material on records, permitting oral answers.
5. Give test orally, with the teacher writing the answers.
6. Train laterality.
7. Train body-image.
8. Use language master extensively.
9. Train to read by the phonetic method.

C. Visual Learners will have problems in the auditory-vocal channel disability.

1. They seem brighter than tests show them to be.
2. They have a poor perception of time and space, they get lost easily, and have a real problem telling time.
3. May have a speech problem.
4. May seem not to listen or understand.
5. Seem shy, rarely talks in class.
6. Responds in one-word sentences.

D. In writing a prescription for learning visual learners, one must remember that they learn mostly through their eyes (visual modality).

1. Train them to read by the look-and-say method.
2. Use configurational clues.
3. Use context clues.
4. Teach auditory discrimination.
5. Teach sound blending.

CLOSE CIRCUIT T.V. SUGGESTIONS

1. Auditory:

Teacher and children "clap out arithmetic lesson" while one or more other children do their lesson from tape recorder and head phones blocking out the rest of the activity of the class.

2. Motor & Tactual Learning Suggestions:

A. Devise a maze or obstacle for children to complete, calling on them to jump, skip, hop through it depending on their motor needs.

B. Have youngsters touch fingertips with their thumbs without looking at their hands.

C. Youngsters identify fruits by "feeling" them.

D. Mirror game — Two children facing each other - one is the person looking into the mirror while the other is the mirror. Observe to see how closely the "mirror" can follow the "person's" motor movements.

3. Visual

Youngsters have a puppet show lesson while being taped on a small console T.V. unit. They have the opportunity to see themselves on television while they are having the lesson.

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SAMPLE DIAGNOSTIC PLAN

Name Age School Date

Learning Difficulty	Immediate Goal	Implementation	Evaluation	Revision
Problem in the visual motor (eye control) Cannot read a complete sentence in sequence. Eye wanders to next line before completion of the first sentence.	1. To help organize eye motor development. 2. Promote better organization in the child	Prearrange lesson by making up suitable sentences and also providing clear cut color cues and numbers. Example: "Where Are You?"	Youngster did fine. Doesn't need large letters.	Use same sentences only typed on primary typewriter.
			There is still a problem of his eyes wandering and reading into next sentence.	Provide for extra space between sentences. Use color cues and numbers.
		Give sentences written with primary typewriter. Have child point to each word and number as he reads. Change position of words in sentence slightly as preventive method to keep child from memorizing. Continue use of cues.	Typewritten words seem more appropriate for his age. Still relies a great deal on color cues and numbers. Eyes continue to wander to next line.	Make a "window" to block out other sentences.
			Improvement in eye control probably due to eye-hand involvement.	Remove color cues and replace with neutral cues only.
		Take out middle section of sentences. Have child follow with fingers: "Where _______ you?" Read sentences with omitted section included: "Where are you?" Child may touch each word.	Number and color cues no longer needed.	

MATERIALS FOR TRAINABLE MENTALLY RETARDED

Newman Visual Education
2023 Eastern Avenue S.E.
Grand Rapids, Michigan 49507

Seal Dry Mounting Press
Seal Sealector Tacking Iron
Revere-Wollensak Tape Recorders
Bretford Projector Stands
Newcomb Record Players —
Variable Speed

Luce Manufacturing Co.
6300 St. John Avenue
Kansas City, Mo. 64123

5 piece Nested Lucky Tripper
$10.00 per set

Ladaco
Denver, Colorado

Matching shapes
Weights
Stick measures, color coded
12 matching sounds
10 bottles with various smells

Creative Playthings, Inc.
Princeton, New Jersey 08540

Matching Clowns
Matching Faces
Sand Numbers
Lockbox

Instructo Corporation
Paoli, Pennsylvania 19301

Flannel Board Materials
Walk On Sets
Concept Builders
Puppet Playmates

Audio Dynamic Research
1219 E. 11th
Pueblo, Colorado

Perceptual Development

F. A. Owen Publishing Co.
Dansville, New York

Physical Fitness in Motion

Teaching Aids
10 Tenth St.
Richmond, California 94800

Dressing Frames
Sorting and Counting Tray
Double Deck Peg Board
Clothespin Circle
Cylinder Pegs
Numeral Peg Board
Sound Discrimination

Robert Unkefer, Associate Professor
of Music Therapy
Michigan State University

MUSIC MATERIALS IN SPECIAL EDUCATION

I. Materials and their adaptation must be determined by objectives and goals we hope the children will reach.

II. Thus, we have to specify the experiences children need to aid them to move toward maturity:

  A. Experiences in structure

    1. Music demands time-ordered behavior
    2. Music demands reality-ordered behavior

  B. Experiences in self-organization

  C. Experiences in relating to others

    1. Responsibility in group relationships can be promoted earliest in music group activities.

III. To provide these experiences, we must provide activities of four types to help a child score a therapeutic gain:

1. Learning Activities
2. Creating Activities
3. Recreational Activities
4. Manipulative and Motor Skill Activities

All of the above types of activity can be related to some form of individual or group music activity.

Sources of Materials:

Orff Instrumentarium:
Magnamusic - Baton, Inc.
6394 Delmar Blvd.
St. Louis, Missouri 63130

Chromatic Tone Bars:
Lyons Band Instrument Co.
Chicago, Illinois

Music Therapy Source Book:
Music In Therapy
Ed. -E. Thayer Gaston
The MacMillan Co.

MAKING INSTRUMENTS

A Set of Chimes

A very satisfactory orchestra may be built up around a set of chimes by using easily constructed instruments. A good set of chimes can be made without too much difficulty, and at very little expense. The materials required are:

About 14 feet of iron water pipe, 1 inch in diameter (this may be obtained in short lengths ranging from 1 foot to 2 feet at almost any junk yard or from a plumber), a plywood board about 16 inches by 28 inches, 2 strips of board 1 1/2 inches by 3/4 inches by 26 inches, 2 short strips 1 1/2 inches by 3/4 inches by 12 inches, a strip of sponge rubber of 1/2 inch width (may be gotten at an automobile repair ship), nails or screws, tacks, strong twine, 28 inches of doweling 1/2 inch in diameter for handles of the mallets, two 1 1/2 inch pieces of hard rubber (from the steering wheel of a car) for the mallet itself.

Procedure: If the hacksaw, file, and other tools necessary for cutting the iron pipes are not in the workshop, or if the labor required seems too difficult, the cutting may be done by a local plumber or blacksmith. Twelve pieces of pipe should be used in order to provide an octave with 4 extra notes. As the tone of any piece of pipe can be raised by shortening it, and as nothing can be done to lower tone, it is best to cut the longest piece first. Test its tone by placing it on two strips of insulating rubber, or hang it with a string, and tap it with the rubber mallet. If its tone is too high, a longer piece of pipe can be cut to get the desired tone, and the first piece can be used for a higher tone. The pitch can be raised by filing the end or by sawing it a second time if the note is very flat.

The lengths of the pipes used in the chimes made in the workshop were as follows:

14 11/16 inch; 13 7/8 inch; 13 1/8 inch; 12 13/16 inch; 12 7/16 inch; 11 7/8 inch; 11 5/16 inch; 11 inch; 10 5/8 inch; 9 11/16 inch; 9 1/4 inch.

It is better to cut the pipes slightly longer than these measurements and file them down to the required length, than to risk getting them too short. Variations in the size of the pipe not noticeable to the eye may make it necessary to change these measurements slightly to get the proper pitch.

Stretch strips of insulating rubber along the narrow edge of the 1 1/2 by 3/4 inch boards and tack it into place. Screw these boards to the large plywood board. Arrange the pipes on the rubber strips, setting the F# and the B^b pipes a little farther to one side to distinguish them from the other notes.

Fasten the pipes into place by winding strong twine twice around each end of pipe and tying it firmly to a tack set in the board directly under the pipe.

The mallets are made by rounding the ends of two 1 1/2 inch lengths of hard rubber from the steering wheel of a car, boring a hole in the center of each piece and gluing a 14 inch piece of doweling into the hole.

A Marimba

Materials needed: 12 to 15 feet of board 1 1/2 by 1/2 to 5/8 inch wood such as poplar, cypress, or redwood is best. About 44 inches of felt or rubber (inner tube) about 1/2 inch wide, nails, glue, board about 10 by 20 inches, stick 14 to 15 inches for tapper, 1 1/2 inch doweling for knob of tapper.

Procedure: (1) Cut 11 pieces of board, the first 12 inches long, the second 11 1/2 inches and each succeeding stick 1/2 inch shorter than the one before it, the last stick being 7 inches long.

(2) Polish these sticks on all sides with sandpaper, being careful not to round the edges at the ends as this would spoil the tone.

(3) Cut 2 thin strips of wood about 1 1/2 by 1/2 inch and 22 inches long. Stretch felt or rubber along the 1/8 inch edge of these strips, and draw it over the ends and tack. Do not drive any tacks in the top of the strip.

(4) Lay the marimba sticks on the rubber-covered strips with the rubber covered strips with about 1/2 inch of space between them.

(5) With a tapper, test the tones of the sticks. Make the tone of the longest stick match a piano tone correctly. If the tone of the stick is a little low, it can be raised by shortening the stick a little. If the tone is too high, it can be lowered by planing the stick a little. In this way, tune all the marimba sticks so that there will be one main octave and three notes either above or below this octave.

(6) There are two points in each stick where there is little or no vibration. These are called nodal points and are a distance of about 1/4 the entire length of the stick measured in from the end.

Find the nodal points in the longest and the shortest stick. Bore holes at these points. Place these sticks on the rubber-covered strips at opposite ends so that the holes are directly over the rubber-covered strips. Arrange the other sticks at 1/2 inch intervals between these two. Mark the place on these sticks just over the strips. Bore holes at these points. Drive slender nails or brads through these holes into the strips. These nails must not be driven in tightly. They must not touch the wood of the marimba sticks, as that would prevent vibration and deaden the tone.

(7) Fasten the rubber-covered sticks to the 10 by 20 board.

(8) For the tapper: Smooth the 1 1/2 inch piece of doweling with sandpaper, slightly rounding the ends. Bore a hole in one end, about 3/4 inch deep. Glue the tapper stick into this hole.

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SUMMARY OF MANIPULATION OR REASONABLE CONTROL

The Problem of Definition

The term emotional disturbance has become a portfolio term that includes many behavior and personality patterns. The child who is called emotionally disturbed is one who illicits disturbed reactions in those peers and adults around him. Yet, depending on who is judging their "disturbance", it could be viewed quite differently. A normal "American" child would be perceived as seriously disturbed by the Zuni Indian culture, and vice versa. Therefore, deciding that a child is "emotionally disturbed" is a difficult task at best, and is generally a meaningless kind of classification. For the purpose of this paper, the disturbed child will be considered a socialization failure, because underlying any of the sophisticated labels used to categorize these children is the implication that their behavior is maladaptive, in terms of society's expectations.

The Problem of Management

It seems that three basic models have been utilized by teachers to manage the socialization failure throughout the country. They are (1) the psychodynamic interpersonal strategy, (2) the sensory neurological strategy, and (3) the behavioral modification strategy. (Hewett, 1968)

The psychodynamic interpersonal strategy is concerned with why a child has maladaptive patterns of behavior. That is, it stresses the importance of the psychic origins and meaning of the behavior and relates this to the child's relationships to the people in his world. The idea is that if the psychological causal factors are clearly understood, and based on this understanding, a trusting positive relationship is established, emotional disturbance will then be remediable. The basic goal of this model is to observe and interpret behavior in the framework of a psychodynamic system such as psychoanalytic theory and finally understand why a child manifests maladaptive behavior. The teacher is a part of this system, and becomes a kind of therapeutic tool of the mental health specialist who is responsible for constructing the proper milieu for the child. The teacher should communicate acceptance and establish a growthful relationship while educational goals remain somewhat secondary in importance. The basic goal in the sensory neurological strategy is to determine the basic disabilities in a child's sensory and neurological structure and functioning. This is achieved by massive diagnostic testing. The teacher then becomes a remediation specialist, attempting to train the child to compensate for his disability and begin to perceive stimuli correctly. Essentially, this system asks how the neurology of a child is functioning.

Behavioral Modification

Instead of asking why a child manifests maladaptive behavior or how his nervous system is functioning, a teacher very often must be concerned with what behavior does a child manifest which interferes with his learning in school. It seems that it is the behavioral modification strategy which is concerned with asking what rather than why or how. (Hewett, 1968) Behavioral modification is the application of the results of learning theory and experimental psychology to the problem of altering maladaptive behavior. The focus of attention is on overt behavior and changing that behavior. Therefore, the teacher learning-specialist must be concerned with three basic questions about his student. The questions are (1) what behavior is maladaptive and how should it be changed; (2) what rewards or environmental contingencies are currently supporting the maladaptive behavior; and (3) what rewards or positive reinforcements could be used to change the maladaptive behavior. The teacher then becomes a kind of learning theorist who attempts to clearly define what behaviors he wishes to change, and then by using meaningful rewards and punishments, proceeds in a manner which rests on scientific principles and vigor.

> The interfering behavior which the emotionally disturbed child exhibits in the classroom are considered learned in the context of this strategy. By assisting the child in modifying his behavior and hence increasing the probability of his success in and acceptance by the environment, underlying core or causal factors are largely ignored. The teacher, using this strategy, is also more concerned with the disadvantages and negative consequences inherent in allowing the child to maintain maladaptive behavior rather than the long standing controversy over whether symptom removal constitutes a cure or mere masking of the real problem. (Hewett, 1968)

Therefore, this is a system which is concerned with manifest behavior which can be observed and "measured". It is also concerned with changing that behavior. The basic goal is to identify clearly the maladaptive behavior and assist the child in developing more adaptive behavior.

> Every child is considered a candidate for learning something regardless of his degree of psychopathology or other problems. This 'something' may only represent a starting point (e.g., chair sitting) and be but a small part of the eventual "something" the teacher hopes to accomplish (e.g., reading), but

> care will be taken to insure its mastery before more complex goals are introduced. The child's behavior is viewed in the broadest possible context without rigid adherence to priority ranking of behavioral goals on the basis of interferences regarding emotional conflicts of brain dysfunction. (Hewett 1968)

Therefore, the teacher presents the child with appropriate tasks and if the child fails to perform the task satisfactorily, he is not rewarded or positively reinforced. Negative consequences may be used when the child fails to respond appropriately, and of course, this would constitute punishment. The basic theory says that if a certain piece of behavior occurs, and that behavior is positively reinforced, it is likely to reoccur. The following is a report from a teacher describing her use of the system:

A Token System in the 3rd Grade

by Lois Ostrowski, 3rd Grade Teacher

Problem

I teach a class of 28 third graders, 16 boys and 12 girls. This group had had three teachers in the second grade, and the results were a group of very emotionally insecure children. My first concern was to give each child a secure relationship with me, confidence in their own ability, and a good self-concept. I wanted to establish positive behavior in as many children as possible.

The first area I set out to improve was the way the children came into the room. They would run around, fight, go to my desk, sharpen pencils, go out into the hall, and do anything but take their seats. At the beginning, only two or three sat down. I took data for five days. The number of children out of their seats was almost overwhelming.

Method

The children and I decided we had some work to do. We discussed how we could earn stars, which were used as tokens. Each time a child came in and sat down promptly, a star was placed on his card. As their behavior improved, we decided we could be rewarded for staying in our seats, working quietly, cooperating with special teachers, etc.

The star tokens were accumulated and traded for certain things. The price list was like this: 15 stars for a sucker, 15 stars for bubble gum, 150 stars for being taken out

> to lunch, 75 stars for a ride home, 10 stars to wash the blackboards. In addition, the children are always praised for good positive behavior.

Results and Discussion

> In general, the results have been very good, only two children have not responded to our token and reward system. Both are very emotionally disturbed and need more help than I can give them in a short year. However, all the other children are responding very well. However, it is important to keep the situation very well structured so that they know exactly what they're supposed to do and what they will receive for it, or they seem to soon forget. (Ostroski 1968)

Caution

Behavioral modification is not a simplictic system, and should be used only by people who clearly understand it. It is a system of empirical laws which are governed by a scientific sequence. However, it is crucial that the child be the benefactor of the system. That is the system is not a tool to simply make oneself more comfortable about a specific child, but should be used to reach the adjustive goals which will allow a child to cope more comfortably with his world. This leads to perhaps the most significant and cardinal of the many rules which govern the system. If the system is used, the specialist must know his student. The specialist must know what his student is capable of doing as well as what matters to the child in terms of rewards.

The child who is mentally retarded would not be expected to solve problems in high order mathematics. Yet, some of the goals set for children by untrained specialists have been this inappropriate. The child who honestly hates school would never be sent home where his toys, and television are to punish him. Yet some environmental contingencies have been this unrelated to what matters to the child. Behavioral modification is effective as a management technique, and should be studied by teachers for possible use in the classroom. However, before using this technique, the teacher must be fully aware of its empirical laws and procedures.

MANIPULATION

One of the major criticisms of behavioral modification is that it is a system which is manipulative. It molds children with bribery and reflects shades of "big brother" in 1984. How can a child "self-actualize" if his destiny is predetermined? However, one basic question must be answered by the critiques of the system. The question is, how is the world presently built and how does it run.

If a two-year-old runs across a busy street, does he receive a well-placed slap on the behind? If the student does an outstanding job in arithmetic, does he receive praise as a reward? And what if that praise is not rewardful for that child, does he receive attempts at rewarding him with some other positive reinforcement? Does a child soon learn that he misses recess or gym if he "misbehaves"? Of course, this assumes that he likes recess or gym. The whole point is that the world seems to be built on an operant conditioning or behavioral modification model. It seems that people do things because of what is in it for them, and this determines their behavior.

Perhaps a teacher would say at this point, that he is certainly not in teaching for the money or the long summer vacation, but because he loves to see children grow and develop under his direction. The rejoinder is of course, "whatever turns you on, baby". That is, people have different reward structures, and if the children's development is this teacher's reward, more power to him.

Therefore, if the world is built on this model, the behavioral modifier is quite simply saying that goals for all people should be determined so that the world might become a more comfortable place. If people are already being manipulated into roles and behaviors by some haphazard nonobjective procedure, perhaps some decisions about how people ought to be before manipulating them are in order.

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3